Advanced DoDFM

AUTOMATED FUEL SERVICE STATION

OPERATOR'S MANUAL

05/26/99

Syn-Tech Systems, Inc. P.O. Box 5258 Tallahassee, FL 32314



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PROPRIETARY INFORMATION

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INTRODUCTION

This manual provides operational instructions for the Syn-Tech Systems, Inc., Automated Fuel Service Station (AFSS). These instructions have been prepared for the exclusive use of system operators. AFSS consists of equipment developed to control access to, account for, and compile reports from fuel and oil products (or any metered product) dispensed at service stations.

AFSS permits true automated, fuel dispensing for service stations ranging from small service operators, to large-scale fleet operations. The Vehicle Identification Readers (VIR) and AFSS Supervisor Program are encoded by Syn-Tech Systems, Inc. with matching system designators (site signatures) that provide security and allow access only by holders of authorized VILs. The AFSS equipment for each installation is assembled to fulfill specific site requirements and must be installed and operated accordingly.



Purpose

The Automated Fuel Service Station provides self-service fuel and oil dispensing without the need for a station attendant. AFSS accomplishes this with security from unauthorized use while maintaining complete accountability of each transaction as it occurs. Transaction data is compiled after data communication to a central accounting office hundreds, or thousands of miles remote from the servicing operations. The AFSS equipment can be integrated to extract accumulated transaction data from one service station, or several far removed and isolated service stations that report to one central accounting office.

Safety Precautions

The National Fire Codes defines a fuel-dispensing site as a hazardous area. To ensure safety while operating AFSS, all instructions in this manual and applicable guidance in the National Fire Codes and the Occupational Safety and Health Act (OSHA) Standards must be read and understood. The following safety precautions from the National Fire Code/OSHA Standards are applicable to self-service fueling operations:

- There shall be no smoking or open flames in the areas used for fueling internal combustion engines.
- The motors of all equipment being fueled shall be shut off during the fueling operation.
- Each service station shall be provided with at least one fire extinguisher having a minimum classification of 6 B, C located so that an extinguisher is within 100 feet of each pump, dispenser, and underground fill pipe opening.
- Warning signs shall be conspicuously posted in the dispensing area incorporating the following or equivalent wording:

WARNING

It is unlawful and dangerous to dispense gasoline into unapproved containers; No Smoking; and Stop Motor.



Certification/Approval

Equipment supplied with the Automated Fuel Service Station is tested and safety certified by ETL Testing Laboratories, Inc. AFSS equipment certified by ETL is identified by the ETL logo imprinted on the nameplate affixed to the AFSS VIR Pedestal.

Warnings, Cautions, and Notes

This manual emphasizes special operations with <u>WARNINGS</u>, CAUTIONS, or NOTES preceding the applicable procedure:

- A <u>WARNING</u> indicates a safety precaution that, if not followed, could result in personal injury.
- A **CAUTION** indicates a safety precaution that, if not followed, could result in damage to equipment.
- A **NOTE** indicates a procedure requiring special emphasis for the proper installation and operation of AFSS equipment.

Improvements

Recommendations for improvement or corrections to this manual should be reported to:

Syn-Tech Systems, Inc. Attn: Product Support P.O. Box 5258 Tallahassee, FL 32314



AFSS Operator's manual Definitions of AFSS Components

DoDFM Adv

The Department of Defense Advanced Fuelmaster® system (DoDFM Adv) is Syn-Tech's state-of-the-art commercial fuel accounting which has been tailored to meet the DoD's specific operational needs. DoDFM Adv and DoD Fuelmaster® will be used interchangeably throughout this manual.

AFSS Vehicle Identification Reader (VIR)

Vehicle Identification Readers

VIRs (sometimes referred to as fixed site VIRs) are manufactured by Syn-Tech Systems, Inc., and are supplied as part of the Automated Fuel Service Station. The VIR(s) accumulate transaction data and provide control for fuel and oil product dispensers. Up to eight dispenser hoses may be controlled by one VIR. Programming options are controlled by the Erasable Programmable Read Only Memory (EPROM) chip. Upgrades and options may be installed by replacement of the EPROM. Manual operation is available through override switches located in the locked pedestal of each VIR. There are two types of VIRs a Master VIR (MVIR) and Satellite (SVIR).

- Master Vehicle Identification Reader (MVIR). Data transfers to and from the servicing island are routed through a MVIR. The MVIR contains a modem that is necessary for independent operation. The MVIR may control up to eight dispenser hoses as well as eight SVIRs.
- Satellite Vehicle Identification Reader (SVIR). When there are multiple islands at a site or more than eight hoses, a SVIR is an alternative to adding MVIRs. Using SVIRs, that send information to a MVIR, eliminates the need for extra phone lines. The SVIR and MVIR communicate through RS-422 wire communications.

Pedestal

Behind the pedestal access door are the terminal box, for external cable connections, and the manual override switches. The manual override switches directly override the VIR permitting product dispensing in the event of an equipment malfunction.



Control panel

The control panel includes a liquid crystal display (LCD) that is 2 lines by 40 characters, a numeric key pad (0 through 9, A through D, Enter/Yes, and Clear/No), and a VIL receptacle. It is through the control panel that the Vehicle Identification Link (VIL) operator gains access to AFSS for dispensing of fuel products.

VIL

A VIL is the device that provides access to both fixed site and mobile VIRs. Each VIL has a non-volatile read/write memory chip that securely stores access and accounting information. The memory chip can be encoded or revised by the owner up to 10,000 times.

- A VIL is assigned to a specific vehicle or equipment item. Vehicle keys are encoded to authorize dispensing of selected products.
- A Mobile VIL is used (at a VIR) by the fuel truck driver (operator) to:
 - 1. set the phone number the Mobile AFSS dials for retrieving;
 - 2. set the truck number;
 - 3. show the current total issues transferred; and,
 - 4. to initiate a transaction retrieve.
- A Configuration VIL provides for: updating product accounting information, dispensing products to vehicles that are not assigned access keys, and performing system diagnostics. This VIL is issued only to personnel who have overall responsibility for the operation of servicing sites.



MAFSS Vehicle Identification Reader

Vehicle Identification Readers (VIR)

This VIR (sometimes referred to as a mobile VIR) are manufactured by Syn-Tech Systems, Inc., and are supplied as part of the Mobile Automated Fuel Service Station. The VIR(s) accumulate transaction data and provide control for fueling transactions by mobile fueling equipment. Programming options are controlled by the Erasable Programmable Read Only Memory (EPROM) chip. Upgrades and options may be installed by replacement of the EPROM. Manual operation is available through override switches located in the Truck Interface Module (TIM).

Truck Interface Module (TIM)

The TIM consists of a weather tight component box normally installed under the seat of the mobile tanker. It contains the controller circuitry which authorizes flow of fuel, collects transaction data and performs the uploading and downloading of data to the "fixed" VIR site.

User Interface Terminal (UIT)

The UIT consists of a weather tight panel normally installed in the trucks CAM box. It contains a display panel that prompts the user, VIL reader and keypad for user input. The UIT sends the user instruction to the TIM which carries them out.

Service Island

The Service Island is where the AFSS VIRs and dispensers are located for dispensing of fuel and oil products.



Fuel Dispensers

VIRs control accesses to and accrues transaction information from the dispensers on the Service Island. Through a configuration process, VIR operating parameters may be configured to accommodate a wide variety of fuel dispensers and operating requirements.

An AFSS VIR is normally installed at an existing station site. Consequently, the fuel dispensers are already in place and need only be integrated with the Fuel Management System. Fuel dispensers, however, have been developed and supplied in a wide assortment of configurations. It has been found that AFSS is not directly compatible with some existing fuel dispenser arrangements. When this occurs, use of pulsers or flow control solenoid valves usually provide compatibility with AFSS.

Telephone lines

Telephone lines for the IBM PC compatible computer and for each MVIR shall be USA voice grade. Sites using computer scanning or monitoring of telephone lines shall need to bypass scanning or monitoring of these lines;

Circuit Breakers

Output electrical power to each VIR may be routed through the power distribution panel that provides electrical power to the existing fuel dispensers, lighting, etc. Circuit breakers should be provided for each VIR.

Central Controller

The Central Controller is an IBM-compatible personal computer (PC) with a hard drive, monitor, keyboard, modem (internal or external), and parallel printer usually located at the base fuels office. The Central Controller communicates with the MVIR(s) at service sites via the modem and with Mobile VIRs via modem (if connected to a telephone line).

The Central Controller PC shall, as a minimum, be comprised of: a standard off-the-shelf



IBM PC compatible 75Mhz or higher Pentium based computer with:

- 50MB of hard drive space available;
- Windows NT operating system;
- FAS:
- CDROM drive:
- a mouse;
- a 1200/2400 bps (preferably higher) HayesTM compatible modem; and,
- 8MB RAM or higher.

The Central Controller receives transaction data from the MVIR(s) and is utilized to input operating information and secure access authorization data to each MVIR.

Printer

The Central Controller printer provides a printed record of transaction data received by the Central Controller. Any printer compatible with the Central Controller, Windows NT operating system, and the needs of the purchaser, may be used.

VIL Encoder

The VIL Encoder is supplied as part of the purchased Automated Fuel Service Station. It provides the operator with the capabilities to write data to, and read data from, the memory chip of the VIL. The VIL Encoder connects directly to an open parallel printer port in the Central Controller and is controlled by the AFSS Supervisor Program. Due to the variances in the DC output driver voltages from different computer systems, the VIL Encoder is supplied with a DC power supply. This ensures a constant power source and compatibly with any selected computer system. When utilized in conjunction with the Central Controller and AFSS Supervisor Program, the VIL Encoder encodes/revises VILs with owner-selected confidential access codes to assure complete security against unauthorized system access and to permit accurate recording of product transaction as they occur.

AFSS Supervisor Program

A specialized operating program is provided for AFSS control and operation. The FAS compatible AFSS Supervisor Program is used to perform the following functions:



- Set-up Supervisor Program configuration;
- Set-up VIR configuration;
- Retrieve Transactions;
- Query Transactions;
- Administer Lock-out data;
- Encode VILs; and,
- Establish communication with VIR(s).



Introduction

This section provides a short step-by-step explanation of a Servicing Operation.

Fueling Operation

The following tasks are performed during a typical servicing operation:

- 1. Operator positions vehicle adjacent to desired dispenser;
- 2. Operator goes to appropriate VIR and follows directions on the LCD to select the desired product pump:
 - Operator is prompted to insert and remove VIL. The VIR determines if the VIL is authorized:
 - If access is authorized, the VIR determines what product(s) are authorized;
 - The LCD displays product hoses that dispense the authorized product; and,
 - The operator selects the desired product hose;
- 3. VIR activates the selected product hose;
- 4. Operator goes to dispenser, removes dispensing nozzle, resets the dispenser (if applicable), and inserts nozzle into vehicle;
- 5. Operator dispenses product;
- 6. Operator replaces nozzle, returns to vehicle, and departs;
- 7. VIR records the transaction and turns off the selected product hose once the pump finish time-out is reached or the pump handle is returned to off; and,
- 8. At periodic intervals, Central Controller operator opens communications with the VIR and retrieves the transaction data.



Summary

When an AFSS VIR is installed and placed in operation it is capable of unattended operation. An operator choosing to make a servicing operation need only complete two actions at the VIR:

- 1. Insert and remove the issued VIL; and,
- 2. Select a product hose from those displayed on the LCD and press <Enter>.



Application

This section provides expanded operating instructions for AFSS. These operating instructions are provided in step-by-step sequence for each procedure that must be performed to place the system in operation. When performing any procedure in this section, each procedural step should be read in its entirety before completing any action. Operations Covered in this section include instructions for: System Power-on; VIR Configuration; VIR operation (programmed and manual); and, System Power-off.

Resolving Problems

In most cases, if a procedural step is not correctly performed an error message is displayed indicating the incorrect action or entry. These messages have been prepared to explain the cause and solution for the error. To avoid unnecessary detail and proliferation, not all situations leading to and resulting in error indication have been listed. If actual results, indication, or displays are not as described herein, and cannot be corrected with the guidance provided, consult a Syn-Tech Systems, Inc. technician for assistance.

System Power-on

The following procedures are performed when power is applied to the system:

WARNING

Improper installation, repair, or modification could result in personal injury. Only qualified technicians should perform installation. After any installation and or any repair or modification is completed, system integrity shall be verified before the application of power to the AFSS.

Engage the system circuit breaker(s) on the power distribution panel.

Check that the VIR's LCD display is at the default prompt of:

** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **



Note

The following procedure need not be performed if the VIR has been previously configured and system integrity has been maintained.

The following procedures are performed to configure a VIR(s):

• Perform "System Power-on". The default display should be observed:

** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **

Note

The VIL receptacle contains spring-loaded contacts. Light to medium pressure must be exerted to compress the contacts before the VIL can be read.

Note

In the sample displays shown in these instructions, variable inputs (i.e., hose numbers, product codes, etc.) may differ from those shown on the actual VIR displays. Differences in the variables should not be construed as errors in these instructions or in the VIR displays.

• Insert a configuration VIL in the VIL receptacle of the VIR. The following display is observed:

SUPERVISOR MENU: A = CONFIG, B = REPORTS, C = HOSES, D = END

• Depress function key "A". The following display is observed:

CONFIGURATION: 13:58:47, 03/20/89 FRI A=MODIFY, B=TESTS, C=TIME/DATE, D=EXIT

• Remove configuration VIL.



Note

When the top line of the display shows "CONFIGURE: A=SELECT; B=UP, C=DOWN, D-EXIT", depressing function key "B" increases the numerical value of the displayed variable. Depressing function key "C" decreases the numerical value of the variable. Depressing function key "A" enters the displayed value of the variable and selects the next entry. Depressing function key "D" initiates a return to the "CONFIGURATION MODIFICATION MENU".

• Depress function key "A" the following display is observed:

CONFIGURATION MODIFICATION MENU: A=HOSES, B=SYSTEM, C=OPTIONS, D=EXIT

• Depress function key "A" to modify the hose and product configuration. A display similar to the following is observed:

CONFIGURE: A=SELECT; B=UP, C=DOWN, D=END HOSE 'A': PUMP NUMBER= 01

- Depress the applicable function keys(s) to set the desired hose number (00-99) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT; B=UP, C=DOWN, D=END HOSE "A": PRODUCT CODE= 02

- Depress the applicable function key(s) to set the desired product code (00-99) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:



CONFIGURE: A=SELECT; B=UP, C=DOWN, D=END HOSE "A": GRADE CODE = MUR

- Depress the applicable function key(s) to set the desired grade code from the stored list for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END HOSE "A": UNIT ISSUE = GAL.

- Depress the applicable function key(s) to set the desired unit of issue from the stored list for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT; B=UP, C=DOWN, D=END HOSE "A": DIVIDE RATE = 10:1

- Depress the applicable function key(s) to set the desired divide rate (number of pulses per unit) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed

CONFIGURE: A=SELECT; B=UP, C=DOWN, D=END HOSE "A": DIVIDE RATE = 10 : 1

- Depress the applicable function key(s) to set the desired divide rate (number of units) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END



HOSE "A": NO-PULSE TIMEOUT =60

- Depress the applicable function key(s) to set the desired no-pulse time-out setting (05-255) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END HOSE "A": PUMP FINISH TIMEOUT = 20

- Depress the applicable function key(s) to set the desired pump finish time-out setting (05-255) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END HOSE "A": USE PUMP HANDLE = NO

- Depress the applicable function key(s) to set the desired pump handle detect setting (YES or NO) for hose "A".
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END HOSE "B": PUMP NUMBER =02

- Repeat steps for all remaining hoses controlled by the VIR.
- Depress function key "D" to end VIR hoses configuration. The following display is observed:

*** CONFIGURATION MODIFICATION MENU ***
A=HOSES, B=SYSTEM, C=OPTIONS, D=EXIT

• Depress function key "B" to select the next variable. A display similar to the following is observed:



CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: VALID VIL TIMER =60

- Depress the applicable function key(s) to set the system valid key timer setting (05-255 seconds).
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: MESSAGE DURATION TIMER =10

- Depress the applicable function key(s) to set the message duration timer setting (01-10 seconds).
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: MODEM ANSWER BEGIN TIME =00

Note

The default values for Modem Answer Begin Time and Modem Answer End Time are 00 and 24, respectively. These settings allow the VIR to respond to an incoming telephone call during any time period. Should it be desired that the VIR not to respond to an incoming call during a period of time, Modem Answer Begin Time and Modem Answer End Time should be reset.

- Depress the applicable function key(s) to set the system modem answer begin time setting (00-24 hours, on a 24-hour clock).
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END



SYSTEM: MODEM ANSWER END TIME =24

- Depress the applicable function key(s) to set the system modem answer end time setting (00-24 hours, on a 24-hour clock).
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: AFSS SYSTEM DESIGNATOR = 01

- Depress the applicable function key(s) to set the AFSS SYSTEM DESIGNATOR from the store list.
- Depress function key "A" to select the next variable. A display similar to the following is observed:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: JULIAN DATE CHANGE HR = 00

• Depress the applicable function key(s) to set Julian Date Rollover Hour (range 0-23)

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END SYSTEM: ZERO QTY TRANSACTION LIMIT = 05

- Depress the applicable function key(s) to set Zero Qty. "shutdown" Transaction Limit.
- Depress function key "D" to return to the CONFIGURATION MODIFICATION MENU. The following display is observed:

*** CONFIGURATION MODIFICATION MENU ***
A=HOSES, B=SYSTEM, C=OPTIONS, D=EXIT

• Depress function key "C" to select the options menu. The following display is observed:



OPTIONS MODIFICATION MENU: A = TMU, B = DATA, C = RECEIPT, D = EXIT

• Depress function key "A" to select the TMU (tank monitor unit) option menu:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END TMU BAUD RATE = 2400

• Depress function key "A" to select the data option:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END DATA: COLLECT PERSONAL ID =

• Depress function key "A" to select the odometer option:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END DATA: COLLECT ODOMETER =

• Depress function key "C" to select the receipt option:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END RECEIPT: PRINTER: PRINTER ENABLED=

- ENABLE OR DISABLE THE RECEIPT PRINTER OPTION,
- Depress function key "A" to select more receipt printer options:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END RECEIPT: PRINT AFTER PFAIL=

• Depress function key "A" to select more receipt printer options:



CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END RECEIPT: PRINTER TYPE=

• Depress function key "A" to select more receipt printer options:

CONFIGURE: A=SELECT, B=UP, C=DOWN, D=END RECEIPT: PAPER CUT=

• Depress function key "D" to exit the "CONFIGURATION MENU". The following display is observed:

* CONFIGURATION: 13:58:47, 03/20/89* A=MODIFY, B=TESTS, C=TIME/DATE, D=EXIT

• Depress function key "B" to select the diagnostic tests. The following display is observed:

TESTS:1=SWITCHES,2=OUTUTS,3=LCD,4=KEYPAD A=PROKEE, B=COUNTS, C=RESET, D=EXIT

• Depress function key "1" to select the switches test. A display similar to the following is observed:

SWITCH TEST: PH-87654321 MM-87654321 D= EXIT TEST 00000000 00000011

Switch Manual Mode (MM) switch(s) to check mode switch detect. Turn on pump handle to check pump handle (PH) detect.

• Depress function key "D" to return to the TEST MENU

TESTS:1=SWITCHES,2=OUTUTS,3=LCD,4=KEYPAD A=PROKEE, B=COUNTS, C=RESET, D=EXIT



• Depress function key "2" to select relay output test. A display similar to the following is observed:

* OUTPUTS TEST – OUTPUTS SHOULD PULSE	*
** DURING TEST, PRESS ANY KEY TO EXIT	**

• Depress function key "D" to return to the TEST MENU

• Depress function key "3" to select LCD test. A display similar to the following is observed:

* LCD TEST – PRESS ANY KEY TO BEGIN	**
** DURING TEST, PRESS ANY KEY TO EXIT	**

• Depress function key "D" to return to the TEST MENU

• Depress function key "4" to select KEYPAD test. A display similar to the following is observed:

```
* KEYPAD TEST : PRESS KEYS TO TEST, D=EXIT * KEY PRESSED = 1111
```

• Depress function key "D" to return to the TEST MENU

```
TESTS:1=SWITCHES,2=OUTUTS,3=LCD,4=KEYPAD
A=PROKEE, B=COUNTS, C=RESET, D=EXIT
```

• Depress function key "A" to select the PROKEE® Test. A display similar to the following is observed:

```
VIL DISPLAY FORMAT:
1 = FIELDS, A = ASCII, B = HEX, D = EXIT
```



• Depress function key "1" to select the FIELDS test. A display similar to the following is observed:

PLEASE INSERT VIL TO BE DISPLAYED ...
KEY TYPE = xxxxxxxxxxx A=NEXT, D=EXIT

- Insert VIL to be displayed then depress function key "A" to advance to more key information:
 - SITE SIGNATURE: 65535 (FFFF) example
 VIL: CONFIG001 example
 DATA CONFIGURATIONVIL example
- Depress function key "D" to return to the TEST MENU

VIL DISPLAY FORMAT: 1 = FIELDS, A = ASCII, B = HEX, D = EXIT

• Depress function key "A" to select the ASCII test. A display similar to the following is observed:

VIL DISPLAY FORMAT:
PLEASE INSERT VIL TO BE DISPLAYED . . .

• Insert VIL to be displayed, the Vil is displayed in ASSCI: see example below

BYTE: 00 01 02 03 04 05 06 07 A=MORE VALUE: - - - - - C 0 D=EXIT

• Depress function key "D" to return to the TEST MENU

VIL DISPLAY FORMAT: 1 = FIELDS, A = ASCII, B = HEX, D = EXIT

• Depress function key "B" to select the HEX test. A display similar to the following is observed:



VIL DISPLAY FORMAT: PLEASE INSERT VIL TO BE DISPLAYED . . .

• Insert VIL to be displayed, the Vil is displayed in HEX : see example below

BYTE: 00 01 02 03 04 05 06 07 A=MORE VALUE: F6 14 FE ED 01 00 43 4F D=EXIT

• Depress function key "D" to return to the TEST MENU

TESTS:1=SWITCHES,2=OUTUTS,3=LCD,4=KEYPAD A=PROKEE, B=COUNTS, C=RESET, D=EXIT

• Depress function key "B" to select the COUNTS test. A display similar to the following is observed:

CNT TEST	1-00000	3-00000	5-00000	7-00000
D = EXIT	2-00000	4-00000	6-00000	8-00000

The counts test checks the serviceability of the pulse transmitters that are mounted in each dispenser. Once at this screen, switch the manual mode switch from "auto" to "manual", turn on the pump handle and dispense one (1) gallon (unit) of fuel. The counter on the LCD should increment forward as one gallon is dispensed. In most cases the amount incremented is either 10(1:10 divide rate) so the counter would display "00010" or 100(1:100 divide rate) so the counter would display "00100". A single count off in either direction is still considered accurate. If no count occurs it is likely that the pulse transmitter failed and needs replacement. Contact Syn-Tech Systems, Inc., Product Support regarding further tests.

• Depress function key "D" to return to the TEST MENU

TESTS:1=SWITCHES,2=OUTUTS,3=LCD,4=KEYPAD A=PROKEE, B=COUNTS, C=RESET, D=EXIT



• Depress function key "C" to select the RESET test. A display similar to the following is observed:

```
*** POWER RESET TEST

***

* PRESS ANY KEY TO TEST OR 'D' TO EXIT

*
```

• Depress function key "D" to select exit and abort the test. A display similar to the following is observed:

```
*** POWER RESET TEST

*** POWER RESET TEST CANCELLED!

***
```

• Press any key on the keypad and the VIR then performs it's internal start up diagnostics and the LCD displays should come to the default prompt of:

```
** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **
```

TIME / DATE

Note

The performance of the following steps is required only if it is necessary to correct the time and date.

• Insert the Configuration VIL, the main Supervisor Menu will be observed.

```
SUPERVISOR MENU: 1 = TOTALIZERS
A = CONFIG, B = REPORTS, D = END
```



• Depress function key "A". A display similar to the following is observed:

* CONFIGURATION: 13:58:47, 03/20/89* A=MODIFY, B=TESTS, C=TIME/DATE, D=EXIT

• Depress function key "C" to select the TIME/DATE menu. A display similar to the following is observed:

TIME / DATE MENU: 13:28:21 12/12/98 SAT. A=TIME, B-DATE, C=DAY OF WEEK, D=EXIT

• Depress function key "A" to modify TIME. A display similar to the following is observed:

SYSTEM TIME: 13:28:00 YES=ACCEPT D=EXIT ENTER NEW TIME (hh:mm:ss)->

• Enter hour (hh), minutes (mm), and seconds (ss) as read on a 24-hour clock. Single digit entries must be preceded by a zero (0). After entry of time select function key "ENTER/YES" to accept new time. A display similar to the following is observed:

ENTER NEW TIME (hh:mm:ss)_> 14:21:15 STORING NEW SYSTEM TIME . . .

• Once the new time is stored a display similar to the following is observed:

TIME / DATE MENU: 13:28:21 12/12/98 SAT. A=TIME, B-DATE, C=DAY OF WEEK, D=EXIT

• Depress function key "B" to modify DATE. A display similar to the following is observed:

CURRENT DATE: 12/12/98 YES=ACCEPT D=EXIT ENTER NEW DATE (mm/dd/yy)->



• Enter month (mm), day (dd), and year (yy). Single digit entries must be preceded by a zero (0). After entry of time select function key "ENTER/YES" to accept new date. A display similar to the following is observed:

ENTER NEW DATE (mm/dd/yy) -> 12/13/98 STORING NEW SYSTEM DATE . . .

• Once the new time is stored a display similar to the following is observed:

TIME / DATE MENU: 13:28:21 12/12/98 SAT. A=TIME, B-DATE, C=DAY OF WEEK, D=EXIT

• Depress function key "C" to modify DAY OF WEEK. A display similar to the following is observed:

SETDAY OF WEEK: A=ACCEPT,B=CHANGE,D=END DAY OF WEEK: SATURDAY

• If day of week is incorrect depress function key "B", the display scrolls through each day of the week one stroke at a time. When you arrive at the correct date depress function key "A". A display similar to the following is observed:

DAY OF WEEK : SUNDAY STORING NEW SYSTEM DAY OF WEEK . . .

• Depress function key "D" to exit. Each time "D" is depressed the display will back up one menu until back to the default menu.

OTHER SUPERVISOR MENUS, NON-AIR FORCE SYSTEMS ONLY:

• Starting at the main display menu:

** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **

• Insert the CONFIGURATION VIL, a display similar to the following is observed:



SUPERVISOR MENU: 1 = TOTALIZERS A = CONFIG, B = REPORTS, D = END

• Depress function key "1" for the TOTALIZERS menu. A display similar to the following is observed:

TOTALIZER MENU: 1 = SET CUMULATIVE A = CLEAR CURRENT D = EXIT

- By depressing the "1" function key you may set the numeric value of each hose totalizer.
- By depressing the "A" function key you may clear (reset to zero) the value of the hose totalizers.
- Depress function key "D", a display similar to the following is observed:

SUPERVISOR MENU: 1 = TOTALIZERSA = CONFIG, B = REPORTS, D = END

• Depress function key "B" for the REPORTS menu. A display similar to the following is observed:

* REPORTS: 1=ERR LOG, 2=LCD PRMPT LOG * 3=ERR DUMP, A= CONFIG, D = EXIT *

- By depressing the "1" function key a log of the stored USER ERRORS will be sent to the attached on-site printer.
- By depressing the "2" function key a log of the stored LCD PROMPTS will be sent to the attached on-site printer.
- By depressing the "3" function key a log of the stored VIR ERRORS will be sent to the attached on-site printer.
- By depressing the "A" function key a log of the stored VIR CONFIGURATION will



be sent to the attached on-site printer.

• Depress function key "D", a display similar to the following is observed:

• Depress function key "A", a display similar to the following is observed:

• Depress function key "C", a display similar to the following is observed:

- By depressing function key "A" you may set the TMU (tank monitor interface) variables at which the communications between the VIR and the TMU will occur. These are: BAUD RATE, DATA BITS and PARITY.
- By depressing function key "B" you may set the DATA selections COLLECT PERSONAL ID or COLLECT ODOMETER.
- By depressing function key "C" you may set the RECEIPT PRINTER variables. These are: RECEIPT PRINTER ENABLED, RECEIPT PRINTER AFTER PFAIL, RECEIPT PRINTER TYPE AND RECEIPT PAPER CUT.

VIR operation (programmed and manual),

Normal self-service VIR operation for the selection and activation of product hoses is provided through the automatic capabilities of AFSS. Manual switches are installed in the VIRs to override the automatic capabilities, if needed. Following are procedures for both programmed and manual operation of the VIRs:

Automatic Operation



The following procedures are for automatic operation of the VIR:

- 1. Position vehicle adjacent to the desired dispenser hose at the Service Island.
- 2. Reference dispense markings and locate the controlling VIR.
- 3. Check that the VIR control panel LCD displays:

```
** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **
```

4. Insert VIL in control panel VIL receptacle. The following display is shown:

```
REMOVE VIL, SELECT HOSE, PRESS <ENTER> 1,2,3,4,5,6,7,8,----
```

(ONLY HOSES CONFIGURED AND ON VIL WILL BE OFFERED)

- 5. Remove the VIL.
- 6. From the listing of hose numbers displayed, depress the number key corresponding to the desired product hose, then depress <ENTER>. The following display is observed.

***	DISPENSER ACTIVATED	

***	DISPENSE PRODUCT	

Note

If another transaction is selected from the same VIR while dispensing is still in progress, the display in step 7 reappears with an asterisk (*) shown immediately to the right of the hose in use (i.e., 1,2,3*, 4,5,6,7,8, -----) indicating that hose (3) is in use and cannot be selected until the previous transaction is complete.

Note

Once a product is selected and the <ENTER> key depressed, there is a limit to the



amount of time available to begin dispensing the product. This time limit is equal to the amount of time programmed for "NO-PULSE TIMEOUT". If the time limit is exceeded, the display notifies the operator that the transaction is canceled. A new transaction may be initiated as soon as the default prompt reappears.

- 7. Return to dispenser and remove nozzle for the selected product hose.
- 8. Reset dispenser, if required, and insert nozzle into vehicle.

Note

If fueling pauses, once dispensing of fuel has started, the VIR deactivates the selected product hose when a time equal to the "PUMP FINISH TIMER" is reached. Should the user commence fueling again prior to reaching this time limit, the VIR resets the timer and waits for the next pause in fueling operations.

- 9. Dispense product as desired.
- 10. Remove nozzle from vehicle and replace on dispenser.
- 11. Return to vehicle and depart.

Manual Operation

The following procedures are for manual operation of the VIR:

- 1. Position vehicle adjacent to the desired dispenser hose at the Service Island.
- 2. Reference dispenser markings and locate the controlling VIR.
- 3. Obtain key and unlock and open pedestal access door to the controlling VIR.

Note

When the AFSS system override switch is engaged, the VIR does not record transaction data. If the VIR is fully operational it may be desirable to leave the system override switch disengaged to permit the recording of transaction data. If



the VIR is not operational, the system override switch should be engaged.

- 4. If applicable, locate and engage the system override switch.
- 5. Locate and engage the desired hose override switch.
- 6. Return to dispenser and remove nozzle.
- 7. Reset dispenser, if required, and insert nozzle into vehicle.

Note

During manual operation the VIR does not control the authorization or recording of each dispensing hose that is placed in the manual mode.

- 8. Dispense the desired amount of product.
- 9. Remove nozzle from vehicle and replace on dispenser.
- 10. Return to VIR, disengage the pump and if applicable, system override switches.
- 11. Close and lock VIR pedestal door. Return key.

Note

If the VIR is disabled and is not recording transaction data, it may be desirable to manually record all transactions until the VIR is returned to programmed operation.

- 12. If applicable, manually record the transaction.
- 13. Return to vehicle and depart.

System Power-Off



AFSS Operator's Manual VIR Operating Instructions

The following procedures are performed when power is removed from the system:

Note

If system power is removed while a transaction is in progress, or while the Central Controller operator has communications established with the MVIR(s), the transaction and communications are terminated. Upon transaction termination, the transaction(s) are stored in the VIR. If a display is observed with other than the default prompt it can be presumed that a transaction is in progress, or communications are open with the Central Controller.

1. Check that the VIR's LCD displays:

** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **

2. Disengage the system circuit breaker(s) on the power distribution panel in the station house. System power is removed, and transactions and communications are terminated until system power is reapplied.

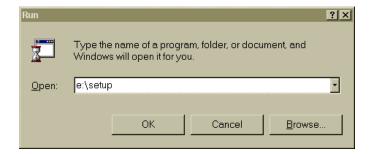


Note

Before attempting to install the DoDFM Adv. Program confirm that you are logged into your PC in the administrator mode. Failure will result in permission problems.

To install DoDFM Adv:

1. Insert the DoDFM Adv CD in the PC's CD-ROM drive, and wait. The FUELMASTER® install software is self-starting. Most PCs running Windows95/NT® will start automatically when you insert the CD-ROM into the CD-ROM drive. However, to manually begin the installation program, place the CD-ROM in the CD-ROM drive. Press the Start button on the Task Bar. Click on Run. Type in "drive letter":\setup (in this example "e" is the drive letter associated with the CD-ROM drive). Click OK.

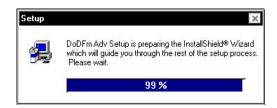


2. Install Shield will now install FUELMASTER®.





Fuelmaster® will prepare InstallShield to install DoDFM Adv.





3. Click Next.

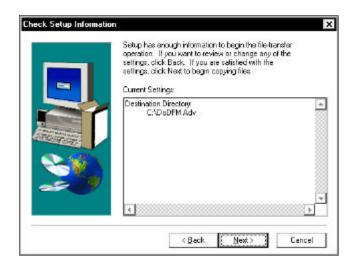


4. Click Yes



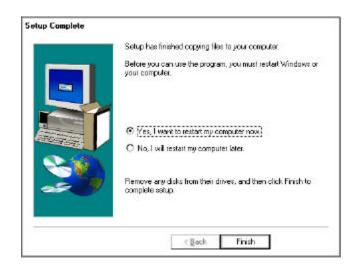


5. Click Next



6. Click Next





Note

Insure other systems users will not be adversely affect by a system reboot prior to initiating a system reboot.

- 7. Click finish.
- 8. Fuelmaster® will install a the DoDFM Adv icon on the computer's desktop. The WINNT\Profiles window can be closed.



9. Installation of DoDFM Adv is now complete.

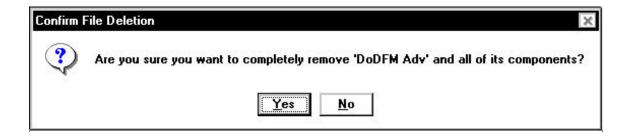


To uninstall DoDFM Adv:

- 1. Click the Start Bar.
- 2. Highlight DoDFM Advs selection.
- 3. Highlight the DoDFM Adv selection.
- 4. Click the uninstall DoDFM Adv icon.

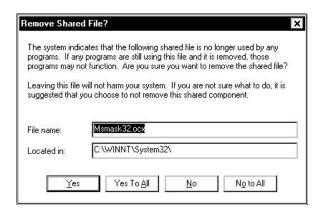


5. DoDFM Adv will present a dialog box asking "Are you sure you want to completely remove DoDFM Adv and all its components?";

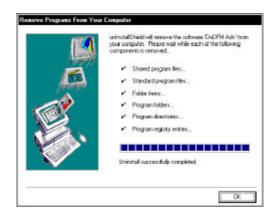


- 6. If you wish to remove DoDFM Adv from your computer, click Yes;
- 7. Upon clicking Yes, unInstallShield will uninstall DodFM Adv.
- 8. Syn-Tech suggests that you click "No to All" for the "Remove Shared Files?" question. It's the safer answer.





9. Click OK after unInstallShield removes DoDFM Adv from you computer.



To start DoDFM Adv:

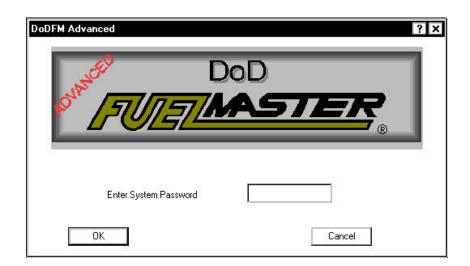
1. From the desktop, Double click the DoDFM Adv icon;

Note

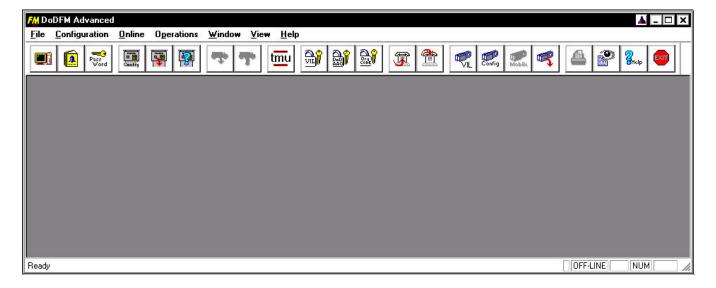
The default password is "11111111". Should one forget one's password, reinstall DoDFM Adv and the password will revert back to the default password.

2. From the Start bar, highlight Programs, highlight DoDFM Adv, and click on the DoDFM Adv icon;





- 3. Enter the system password and click OK.
- 4. If the password is accepted, the main DoDFM Adv screen appears.



- 5. If you type the password incorrectly, a second dialog box appears, stating that "You Did Not Type in The Correct Password";
 - click **OK** in this second dialog box; and,
 - this second dialog box disappears;
 - enter your password, and click **OK** to proceed; and,
 - if the password is accepted, the main DoDFM Adv window appears.



Operating from the main DoDFM Adv window: The main DoDFM Adv screen contains seven (7) pull-down menus from which the menu items of DoDFM Adv may be invoked, and a Status Bar across the bottom of the screen. The menu items may also be accessed via the shortcut icons presented on the toolbar. The pull-down menus and their menu items are as follows:

1. <u>F</u>ile

- <u>V</u>iew
- <u>C</u>lose
- Print
- Print Preview
- Print Setup
- Convert Data
- Recent File
- Exit

2. Configuration

- <u>M</u>odem and Hardware Setup
- Station Phone Numbers
- <u>Change Password</u>

3. Online

- <u>U</u>nit Configuration
- VIL Lockout
- <u>D</u>ODAAC Lockout
- Org. Code Lockout
- Retrieve Transactions
- Query Transactions
- Retrieve Mobile Transactions
- Query Mobile <u>Transactions</u>
- Dial a <u>S</u>tation
- Disconnect



4. Operations

- Encode/Edit Vehicle VILs
- Encode/Edit Config VILs
- Encode/Edit Mobile VILs
- <u>D</u>isplay VIL Contents
- Display encoded VIL <u>L</u>ist
- Erase Key
- Edit VIL Lockout Offline
- Edit DoDAAC Lockout Offline
- Edit Org. Cod Lockout Offline

5. Windows

- <u>C</u>ascade
- <u>T</u>ile
- Arrange Icons

6. View

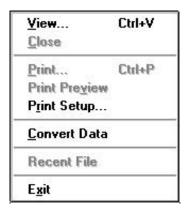
- Toolbar
- Status Bar

7. Help

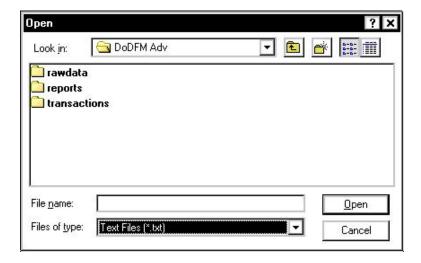
- Index
- About DoDFM



<u>The File pull-down menu</u>: <u>View, Close, Print, Print Preview, Print Setup, Convert Data, Recent File, and <u>Exit</u> selections are provided under the File pull-down menu. These selections provide the user with the capability to view and print files and transaction data.</u>



<u>The View file selection</u> is used to open and list transaction data (both converted and raw), and the phone list. Once opened these files may be viewed and or printed. Selection of the View file steps DoDFM Adv to the Open dialog box. The Open dialog box has an edit box, two combo boxes, a viewing box and option buttons:



Note

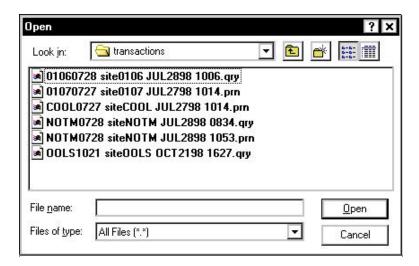
The Open dialog box shown is representative of the Windows[®] NT Workstations 4.0 and Windows[®] 95/98 formats. Earlier versions of Windows[®] NT Workstations, such as Windows[®] NT Workstations 3.51 will have a slightly different look.



- The edit boxes and the two combo boxes are: Look in; File name; and, Files of type. They allow the user to select the file to be viewed.
- The buttons are: Up One Level; Create New Folder; List; Details; Open; and, Cancel.

Note

The viewing box may appear to have the capability to change the data within a file, however any apparent changes made to a VIR file in viewing window are not saved to that file. This file can be printed in the changed condition. This feature allows notes and comments to be added to a file printout in order to retain supplemental file data information.



This selection can be used to view and subsequently print phone.txt (the telephone list) or any of the file types. There are eight (8) transaction types (4 raw data & 4 converted data) maintained by DoDFM Adv:

- "zzmmdd stationzz MMMddyy tttt.raw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.rqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mrw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data generated by a Mobile VIR.



- "zzmmdd stationzz MMMddyy tttt.prn" is the DoDFM Adv generated name for converted retrieved transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.qry" is the DoDFM Adv generated name for converted queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mpn" is the DoDFM Adv generated name for converted retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for converted queried transaction data generated by a Master VIR.

These file names are twenty-nine characters long (including spaces), and take advantage of Windows NT's long filenames. They represent:

- "zz" the station number;
- "mm" the number of the month;
- "dd" the day of the month;
- "stationzz" the station number;
- "MMM" the month (i.e. JAN, FEB, etc.);
- "yy" the last two digits of the year;
- "tttt" the time in hrs & minutes (i.e., 1520 (military time) represents 20 minutes after 3P.M.);

A hypothetical file name could be "010322 station01 MAR2296 1520.qry". This file contains converted queried transaction data from Master VIR number 01 on the 22nd of March 1996 @ 1520 o'clock. In a DOS scenario this same hypothetical file with its shortened name of "010322~1.qry" represents converted queried transaction data from Master VIR number 01 on the 22nd of March.

When DoDFM Adv retrieves or queries data, fixed site or mobile, the data is stored in both the "raw data" and "transactions" folders. The four types of raw data in the "raw data" folder being:

- "zzmmdd stationzz MMMddyy tttt.raw";
- "zzmmdd stationzz MMMddyy tttt.rqy";
- "zzmmdd stationzz MMMddyy tttt.mrw"; and,
- "zzmmdd stationzz MMMddyy tttt.mgy".

This data is never over written by DoDFM Adv and can not be deleted by DoDFM Adv. The four types of converted data in the transaction folder are:

• "zzmmdd stationzz MMMddyy tttt.prn";



- "zzmmdd stationzz MMMddyy tttt.qry";
- "zzmmdd stationzz MMMddyy tttt.mpn"; and,
- "zzmmdd stationzz MMMddyy tttt.mgy".

DoDFM Adv over writes these files with incoming files. For example, supposed a hypothetical transactions folder contains three files:

- "010322 station01 MAR2296 1520.qry";
- "020322 station02 MAR2296 1532.qry"; and,
- "030322 station03 MAR2296 1545.qry".

Further, suppose that station 03 is queried the next day. Its file name might be "030323 station03 MAR2396 1632.qry". This file overwrites the previous station 03 data and the transaction folder would now contain:

- "010322 station01 MAR2296 1520.qry";
- "020322 station02 MAR2296 1532.qry"; and,
- "030323 station03 MAR2396 1632.qry".

Note

Although DoDFM Adv overwrites the converted file, all files still exist in their unconverted form in the raw data folder and can be retrieved if needed.

- The "Look in" edit box selects a folder.
- The "File name" edit box displays the file to be opened.
- The "Files of type" edit box lists types of files (i.e., *.txt).
- The "Up One Level" button changes the level of viewed folders (i.e., if "c:\DoDFM\raw data" folder is presented and the Up One Level button is selected the "c:\DoDFM" folder is presented. This operation is the same as the "cd .." command of DOS).
- The "Create New Folder" button adds a folder at the existing level.
- The "List" and "Detail" buttons toggle the viewing box between a basic list of file names to a more detailed list of file names.
- The "Open" button opens the selected file (highlight the desired file with a single left mouse click) and displays the file in the viewing box.
- The "Cancel" button cancels viewing operations and returns to the DoDFM Adv

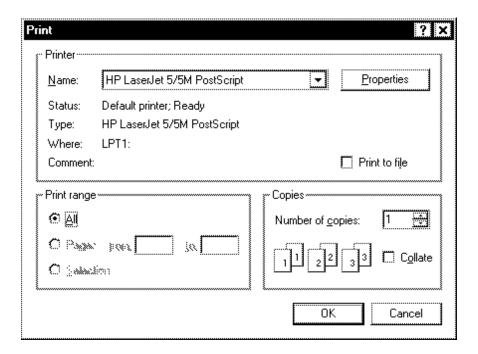


window.

Note

Station numbers range from 01 to 30 and correspond to the phone numbers as entered in the Station Phone Numbers option under the Configuration pull-down menu. However, there exists an exception. When transaction data is retrieved or queried from a mobile VIR via the direct connection method, the Station number is "00".

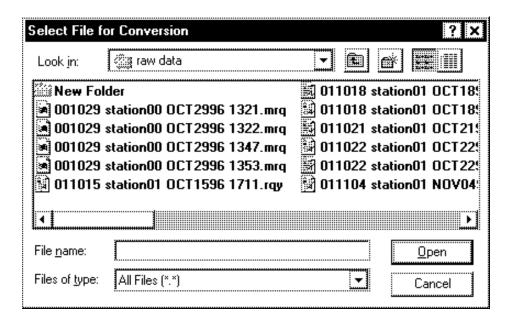
The Print selection prints files displayed in a Select File dialog box (click View File to acquire the Select File dialog box). Selection of "Print" steps DoDFM Adv to a Print dialog box for print setup confirmation. Note should be taken of the printer's status, type and communication port. If this information is correct, select OK. DoDFM Adv steps to a Print acknowledgment dialog box, print the selected document and return to DoDFM Adv window.



The Print Preview selection: The view window used by DoDFM Adv is show exactly as it will be printed.

The Convert Data selection copies transaction data from the "\DoDFM\raw data" folder to the "\DoDFM\transactions" folder. In addition to the copying the raw data to the "\DoDFM\transactions" folder, the data is converted and displayed in a DoDFM Adv viewing window.





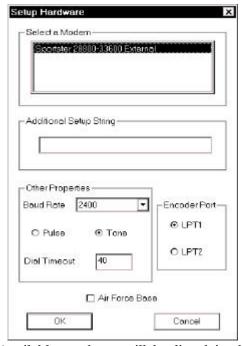
The Exit selection causes the DoDFM Adv program to terminate.

<u>Configuration pull-down menu</u>: Modem and Hardware Setup, Station Phone Numbers, and Change Password are used to input configuration information into DoDFM Adv. This information is setup information and is required prior to any DoDFM Adv and VIR communications attempt. Each of the aforementioned three menu items has a shortcut icon on the toolbar that may be clicked to activate that icon's dialog box.

<u>M</u>odem and Hardware Setup... <u>S</u>tation Phone Numbers... <u>C</u>hange Password...

<u>The Modem and Hardware Setup selection</u> configures communication parameters between DoDFM Adv and VIRs, and DoDFM Adv and the VIL Encoder. Selection steps to the Modem and Hardware Setup dialog box with its six (6) attributes; that are as follows:





• Select a Modem – Available modems will be listed in the Select a Modem window. Highlight the desired modem.

Note

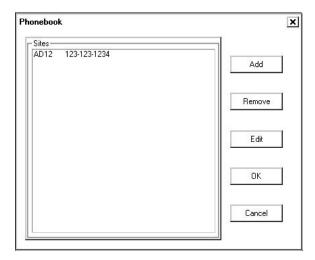
Refer to Appendix 3 - Additional Setup String Commands for modems that need an additional setup string command.

- Additional Setup String This additional setup string allows modem commands, in addition to those normally sent by DoDFM Adv, to be sent to the modem. It is not that an entry is required here. Appendix 3 lists known modems that need a supplementary command string.
- Other Properties
 - Dial Method The dial method option selects either Pulse or Tone so as to match the existing telephone system.
 - Baud Rate The Baud Rate option: 300; 1200; or 2400 allows the Baud rate of the PC's modem to be set in the DoDFM Adv software.
 - Modem Dial Time Out (30 to 255 Seconds): The dial time out represents the length of time each dialing attempt rings prior to terminating the dialing attempt (40 seconds should be a workable time period).

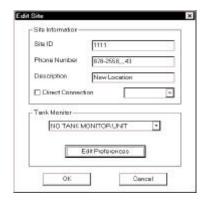


- Encoder Port The Encoder Port option: LPT1; and, LPT2 sets the communications port through which VIL Encoder communications passes.
- Air Force Base Check Box Check if being used on a U.S.Air Force base. This check will change the VIL data to match U.S.Air Force requirements.

<u>The Station Phone Numbers selection</u> allows the entry, removal and editing of site data. Site data includes phone number, site id, site name, tank monitor type and tank monitor reports preferences.

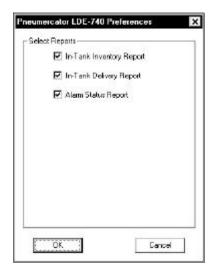


Add may be selected to a new site or high lighting and the edit button will allow an existing site to be edited. Click the Add or Edit button for the Edit Site dialog box.



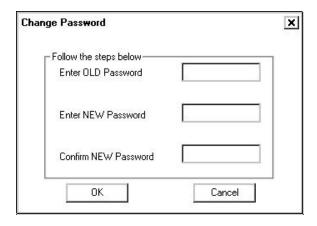


The site number is four alphanumeric characters. The phone number can contain up to forty numeric characters. Parentheses and/or dashes need not be used. Commas can be used to cause a delay during the dialing sequence (i.e., should a phone system require a number be dialed for an outside line that might then require a wait prior to receiving an outside dial tone, commas can be used to generate this wait). The Description edit box is to be used for an alphanumeric description of title of the site. The Tank Monitor combo box will allow the selection of a tank monitor for the site. The tank monitor edit preferences button will bring up a preferences selection dialog box peculiar to the selected tank monitor.



Use the check boxes to select the desire option for the selected tank monitor.

<u>The Change Password selection</u> allows the password to be changed. To change the password: Enter the original password, the new password, and the new password a second time for confirmation.





On-line pull-down menu: Unit Configuration, VIL Lockout, DODAAC Lockout, Organization Code Lockout, Retrieve Transactions, Query Transactions, Retrieve Mobile Transactions, Query Mobile Transactions, Dial a Station, and Disconnect are used to transfer information between a VIR and the DoDFM Adv software. This information includes lockout data and transaction data. Each of the aforementioned ten menu items has a shortcut icon on the toolbar that may be clicked to activate that icon's dialog box.

Unit Configuration

YIL Lockout

DODAAC Lockout

Org. Code Lockout

Retrieve Transactions

Query Transactions

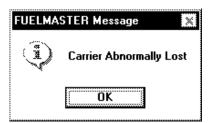
Retrieve Mobile Transactions

Query Mobile Transactions

Dial a Station

Note

If, at anytime during the on-line operations, the telephone line is interrupted or a long duration of inactivity occurs, the VIR will reset and the DoDFM Adv software will display a dialog box stating "Carrier Abnormally Lost". Using the appropriate "OK" and "Cancel" commands, return to the main DoDFM Adv and start over.



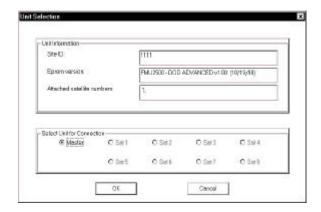
<u>The Unit Configuration selection</u> allows a VIR's configuration to be set. If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. If the PC is on-line with a VIR, DoDFM Adv steps directly to the Modem Status dialog box. The Modem Status dialog box:

• Requests the satellite count;



- Receives the number of active satellites; and,
- Requests the EPROM version.

DoDFM Adv steps to the Unit Selection dialog box that displays:

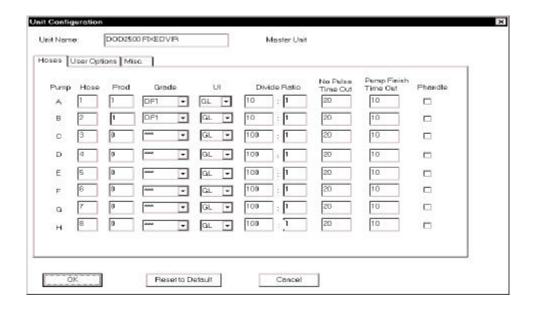


- the station #;
- the EPROM Version;
- the number of attached satellites;
- the attached satellite numbers; and,
- Radio buttons corresponding to Master, Sat 1 through Sat 8

Select the Radio Button that corresponds to the VIR that you wish to configure, click OK, and the Modem Status dialog box requests:

- the configuration information from the selected VIR; and,
- the VIR's Time/Date.





DoDFM Adv steps to the Unit Configuration dialog box that displays the **HOSES** selection:

- Site Name (up to 17 alphanumeric characters)
- A through H Pump selections
- Hose (1 through 99; default is 1 through 8 for Pumps A through H, respectively)
- Prod ; AFSS Product Code (2 characters)
- Grade; Product Grade code (pull down menu)
- UI; Unit of issue (pull down menu)
- Divide Ratio
- No Pulse Time Out (1 through 255)
- Pump finish Time Out (1 through 255)
- Pump Handle Yes/No (check mark for Yes)



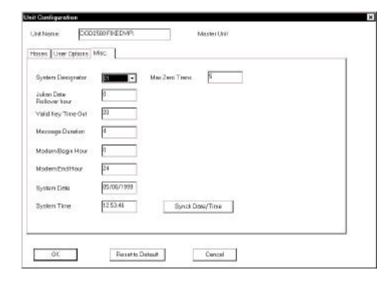
Press the User Options Tab for the USER OPTION selection:



- Odometer (check mark for yes)
- User id (check mark for yes)

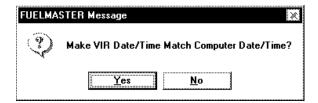
These options control whether the VIR asks for the user to enter either or both of these entries when a VIL is inserted.

Press the Misc. Tab for MISC. selection:



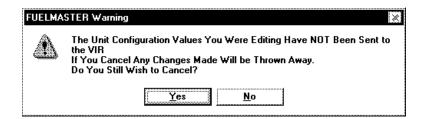


- System Designator (01, A1, A2, A3, A4, A5 selectable from drop down list box)
- Julian Date Roll-over Hour (0 through 23)
- Valid Key Time Out (5 through 255)
- Message Duration (1 through 10)
- Modem Begin Hour (0 through 24; default is 0)
- Modem End Hour (0 through 24; default is 24)
- Max Zero Trans (1 through 50; default is 5)
- System Date (mm/dd/yy cannot be set on satellite VIRs)
- System Time (hh/mm/ss cannot be set on satellite VIRs)
- "Synchronize Date/Time" (this function is only available for Master VIRs) causes the VIR's date and time to change to that of the PC. A FUELMASTER® Message dialog box asks:



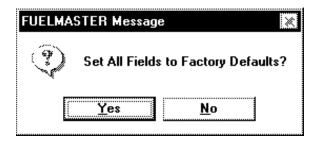
A reminder window will appear if you have not SAVED the configuration for the VIR you are working on.

- Select "yes" to save your changes
- Select "no" to discard any changes





"Default" causes all values to change to their default values. A FUELMASTER[®]
Message dialog box asks:



- Set All Fields to Factory Defaults? respond with:
- Yes or No;

<u>The VIL Lockout selection allows</u> a VIL to be locked out based on the VIL's vehicle number (i.e., the vehicle is no longer accepted by the VIR). If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. If the PC is on-line with a VIR, DoDFM Adv steps directly to the Modem Status dialog box. The Modem Status dialog box:

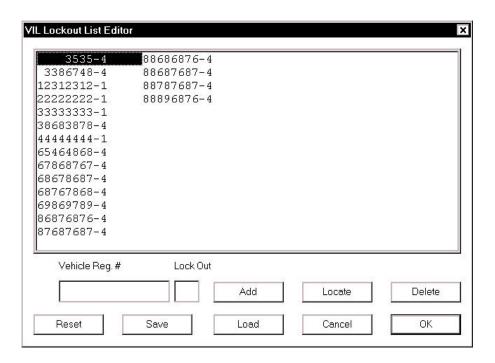
- Requests the VIR's VIL Count;
- The VIR responds with the number of VILs; and,
- The VIL data is requested;

DoDFM Adv steps to the Transferring Data dialog box and onto the Modem Status dialog box that displays:

• VIL Transfer Successful;

Where upon DoDFM Adv steps to the Lockout VIL dialog box that displays:





- VIL lockout data; (up to 500 numbers; up to 9 alphanumeric characters); and,
- eight function buttons.

For each VIL to be locked out, enter the Vehicle Registration Number (8-digits) and the Lockout number of that VIL. To locate the "lockout number you can refer to the Operations pull-down menu / Display Encoded VIL List. The eight function buttons of the VIL lockout data are arranged across the bottom of the Lockout VIL dialog box. Their functions are:

- **ADD** to add enter the vehicle reg. # in the entry box provided and the lockout number in the entry box provided and press Add.
- **LOCATE** find out if a vehicle/lockout is in the list by entering them in the boxes provided and press Locate.
- **DELETE** remove a VIL from the lockout list by highlighting the vehicle you wish removed and press Delete.
- **RESET** blank the entire VIL lockout list by using this feature.



- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- **LOAD** restore the Lockout VIL as it has been saved in the DoDFM Adv software each time a key is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.
- **CANCEL** leave the lockout dialog box with out changing
- **OK** proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout VIL list to the VIR.



<u>The DODAAC Lockout selection</u> allows a series of VILs to be locked out based on the VIL's DODAAC number (i.e., they are no longer be accepted by the VIR) If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. If the PC is on-line with a VIR, DoDFM Adv steps directly to the Modem Status dialog box. The Modem Status dialog box:

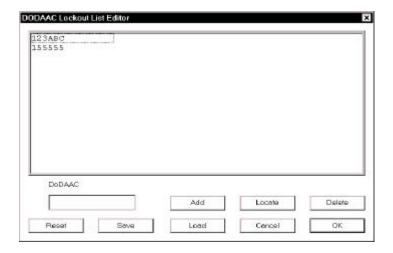
- Requests the VIR's DODAAC Count;
- The VIR responds with the number of DODAACs; and,
- The DODAAC data is requested;

DoDFM Adv steps to the Transferring Data dialog box and onto the Modem Status dialog box that displays:

• DODAAC Transfer Successful;

Where upon DoDFM Adv steps to the DODAAC Lockout dialog box that displays:





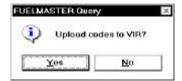
- DODAAC lockout data; (up to 40 codes; up to 6 alphanumeric characters each); and,
- eight function buttons.

For each DODAAC to be locked out, enter the six alphanumeric DODAAC number. eight function buttons are arranged across the bottom of the DODAAC Lockout dialog box. Their functions are:

- **ADD** to add enter the DODAAC Code in the entry box provided and press Add.
- **LOCATE** find out if a DODAAC Code is in the list by entering a DODAAC Code in the boxes provided and press Locate.
- **DELETE** remove a DODAAC Code from the lockout list by highlighting the DODAAC Code you wish removed and press Delete.
- **RESET** blank the entire DODAAC Code lockout list by using this feature.
- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- LOAD restore the DODAAC Code Lockout list as it has been saved in the DoDFM Adv software each time a DODAAC Code is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.
- **CANCEL** leave the lockout dialog box with out changing



• **OK** – proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout DODAAC Code list to the VIR.



The Organization Code Lockout selection allows a series of VILs to be locked out based on the VIL's Organization Code (i.e., they are no longer be accepted by the VIR). If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. If the PC is on-line with a VIR, DoDFM Adv steps directly to the Modem Status dialog box. The Modem Status dialog box:

- Requests the VIR's Org. Code Count;
- The VIR responds with the number of Org. Codes; and,
- The Org. Code data is requested;

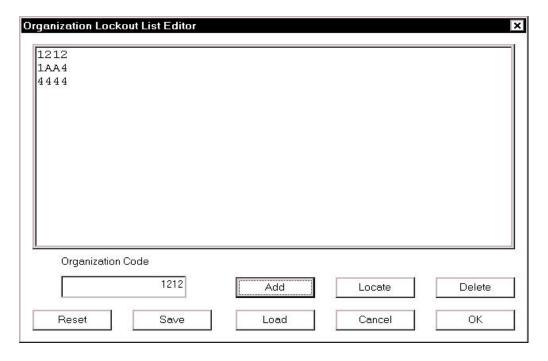
DoDFM Adv steps to the Transferring Data dialog box and onto the Modem Status dialog box that displays:

• Org. Code Transfer Successful;

Where upon DoDFM Adv steps to the Org. Code Lockout dialog box that displays:

- Org. Code lockout data; (up to 100 codes; up to 4 characters each); and,
- eight function buttons.



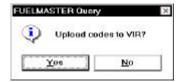


For each Org. Code to be locked out, enter the four character Org. Code. eight function buttons are arranged across the bottom of the Org. Code Lockout dialog box. Their functions are:

- **ADD** to add enter the Org. Code in the entry box provided and press Add.
- **LOCATE** find out if a Org. Code is in the lockout list by entering it in the boxes provided and press Locate.
- **DELETE** remove a Org. Code from the lockout list by highlighting the Org. Code you wish removed and press Delete.
- **RESET** blank the entire Org. Code lockout list by using this feature.
- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- **LOAD** restore the Lockout list as it has been saved in the DoDFM Adv software each time a Org. Code is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.



- **CANCEL** leave the lockout dialog box with out changing
- **OK** proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout Org. Code list to the VIR.



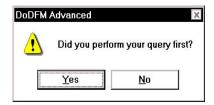
The Retrieve Transactions selection retrieves transaction data from a Master VIR and its Satellite VIRs to the PC, and removes from those VIRs all transaction data. If the PC is not online with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. Unlike the Dial a Station selection, a Dial All Stations radio button allows all stations to be dialed and transactions retrieved sequentially. If the PC is on-line with a VIR, DoDFM Adv steps directly to a FUELMASTER® Message dialog box that requests confirmation, and onto the Modem Status dialog box. The Modem Status dialog box:

NOTE

The proper sequence for transaction download is:

- perform a transaction Query of the site.
- Review the Query with the viewer selection for correct transaction / hose representation.
- If correct continue with the Retrieve Transaction selection. <u>If not correct contact Syn-Tech Systems Product Support at 800-888-9136 before proceeding.</u>



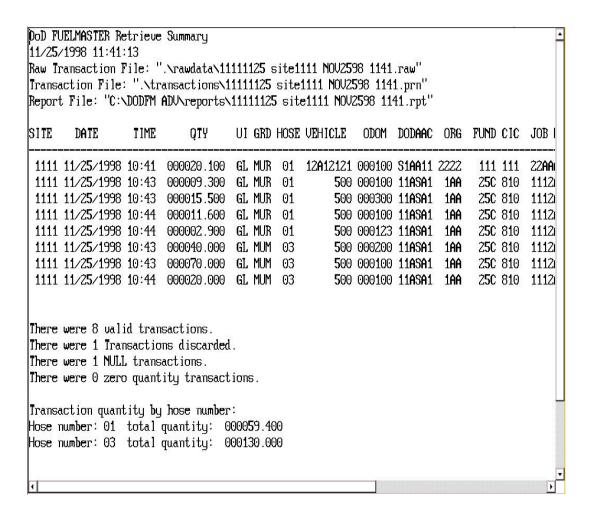


- verifies that transaction data exist in the VIRs;
- verifies the number of transactions;
- retrieves the transaction data;



- stores the copied raw transaction data in the "\DoDFM\raw data" folder;
- stores the copied converted transaction data in the "\DoDFM\transactions" folder; and,
- if "Dial All Stations" has not been selected, presents in a viewing window the converted transaction data.





<u>The Query Transactions selection</u> copies transaction data from a Master VIR and its Satellite VIRs to the PC, but does NOT remove from those VIRs any transaction data. If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. Unlike the Dial a Station selection, a Dial All Stations radio button allows all stations to be dialed and transactions queried sequentially. If the PC is on-line with a VIR, DoDFM Adv steps directly to a FUELMASTER[®] Message dialog box that requests confirmation, and onto the Modem Status dialog box. The Modem Status dialog box:



NOTE

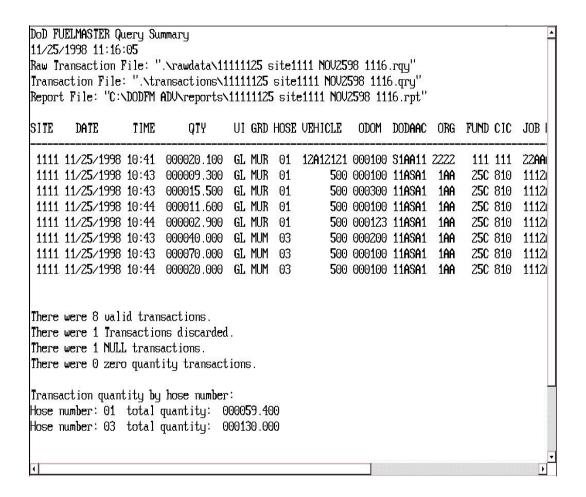
The proper sequence for transaction download is:

- perform a transaction Query of the site.
- Review the Query with the viewer selection for correct transaction / hose representation.
- If correct continue with the Retrieve Transaction selection. <u>If not correct contact Syn-Tech Systems Product Support at 800-888-9136 before proceeding.</u>
- verifies that transaction data exist in the VIRs;
- verifies the number of transactions;
- copies the transaction data;



- stores the copied raw transaction data in the "\DoDFM\raw data" folder;
- stores the copied converted transaction data in the "\DoDFM\transactions" folder; and,
- if "Dial All Stations" has not been selected, presents in a viewing window the converted transaction data.





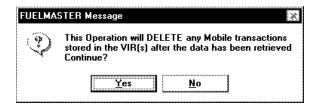
The Retrieve Mobile Transactions selection moves transaction data from a Master VIR to the PC, and removes from that VIR all mobile transaction data. If the PC is not on-line with a VIR, DoDFM Adv performs the steps outlined under the Dial a Station script. Unlike the Dial a Station selection, a Dial All Stations radio button allows all stations to be dialed and transactions retrieved sequentially. If the PC is on-line with a VIR, DoDFM Adv steps directly to a FUELMASTER® Message dialog box that requests confirmation, and onto the Modem Status dialog box. The Modem Status dialog box:



NOTE

The proper sequence for transaction download is:

- perform a transaction Query of the site.
- Review the Query with the viewer selection for correct transaction / hose representation.
- If correct continue with the Retrieve Transaction selection. <u>If not correct contact Syn-Tech Systems Product Support at 800-888-9136 before proceeding.</u>



- verifies that mobile transaction data exist in the VIR;
- verifies the number of mobile transactions:
- retrieves the mobile transaction data;
- stores the copied raw transaction data in the "\DoDFM\raw data" folder;
- stores the copied converted transaction data in the "\DoDFM\transactions" folder; and,
- if "Dial All Stations" has not been selected, presents in a viewing window the converted transaction data:



05/06/ Raw Tr Transa	action File	:37 File: " : ".\tr	mmary .\rawdata\10 ansactions\1 /10010506 si	<u> </u>	95 06	site:	1001 MA Y06	99 130		
SITE	DATE	TIME	QTY	UI	GRD	HOSE	VEHICLE	ODOM	DODAAC	c
OMOB	05/05/1999 05/06/1999 05/06/1999	07: 5 9	000009.700 000006.100 000008.400	GL			12345612 12345612 12345612		AAAAAA AAAAAA AAAAAA	 1 1
There There	were 1 NULI	nsactio L trans	ns discarded	500	3.					Ī₹Ī
•										1

- 13				Message	Transactions	-	_
Hose	Put in	to Manual Mod	e				
Site	Hose	Date	- Time				
OMOB	RU	05/06/1999	07: 5 9				
Hose	Put in	to Auto Mode					
Site	Hose	Date	Time				
OMOB	RU	05/05/1999	15:40				
OMOB	RU	05/05/1999	15:40				
OMOB	RU	05/06/1999	07:5 9				
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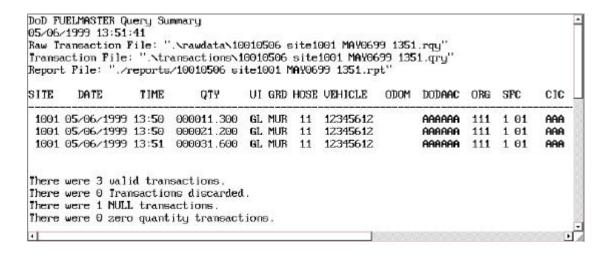
The Query Mobile Transactions selection copies mobile transaction data from a Master DoD VIR to the PC, but does NOT remove from that VIR any mobile transaction data. If the PC is not on-line with a VIR, FUELMASTER® performs the steps outlined under the Dial a Station script. Unlike the Dial a Station selection, a Dial All Stations radio button allows all stations to be dialed and transactions queried sequentially. If the PC is on-line with a VIR, DoDFM Adv steps directly to a FUELMASTER® Message dialog box that requests confirmation, and onto the Modem Status dialog box. The Modem Status dialog box:

NOTE

The proper sequence for transaction download is:

- perform a transaction Query of the site.
- Review the Query with the viewer selection for correct transaction / hose representation.
- If correct continue with the Retrieve Transaction selection. <u>If not correct contact Syn-Tech Systems Product Support at 800-888-9136 before proceeding.</u>
- verifies that mobile transaction data exist in the VIR;
- verifies the number of mobile transactions;
- copies the mobile transaction data;
- stores the copied raw transaction data in the "\DoDFM\raw data" folder;
- stores the copied converted transaction data in the "\DoDFM\transactions" folder; and,
- if "Dial All Stations" has not been selected, presents in a viewing window the converted transaction data;





				Message	Transactions	<u></u>
Hose	Put im	to Manual Mod	e			
Site	Hose	Date	Time			
OMOB	RU	05/06/1999	13:51			
OMOB	RU	05/06/1999	13:51			
Hose	Put in	to Auto Mode				
Site	Hose	Date	Time			
омов	RU	05/06/1999	13:51			
OMOB	RU	05/06/1999	13:51			
1	7.440.3	nonnon account to the	DOCUMENTO V. 45			



<u>The Dial a Station selection</u> dials selected Master VIRs. Selection of Dial a Station causes DoDFM Adv to step to the Connect dialog box that displays Open Remote Connection options and Open Direct Connection options. Open Direct Connection options are currently not available. Individual sites can be selected via the Location combo box. The phone number for the selected site is displayed and can be edited as required via the Edit Phonebook button. The Edit Phonebook button will bring up the Phonebook dialog box (reference Configuration/Station Phone Numbers).

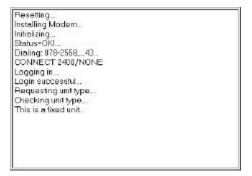
Selected either the Dial button. The Dial All button is not supported yet. DoDFM Adv will step to a Modem Status dialog box:



The status of the dialing connection will be listed in the Modem Status information box. DoDFM Adv will:

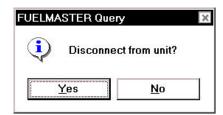
- Initialize the PC's Modem;
- Dial the selected telephone number;
- Send the appropriate logon information
- Log on to the dialed VIR; and,
- Steps DoDFM Adv to the DoDFM Adv window.





The Edit Phone Numbers selection steps DoDFM Adv to the Station Phone Numbers dialog box where phone numbers may be added or edited (see Configuration pull-down menu, Station Phone Numbers for details).

The Disconnect selection hangs-up the VIR's modem and terminate communications with that VIR. DoDFM Adv steps to a Disconnect dialog box that requests verification. DoDFM Adv terminates communications and returns to the DoDFM Adv dialog box.





<u>Operations pull-down menu</u>: Encode/Edit Vehicle VILs, Encode/Edit Config VILs, Encode/Edit Mobile VILs are used to transfer information to a VIL. This information includes lockout data and transaction data. Each of the aforementioned three menu items has a shortcut icon on the toolbar that may be clicked to activate that icon's dialog box. The Display VIL Contents, Display Encoded VIL List and Erase Key selections all refer to VIL maintenance, while the last three selections; Edit VIL Lockout Offline, Edit DoDAAC Lockout Offline and Edit Org. Code Lockout Offline allow you to authorize/deauthorize VIL without dialing up a site for later sending to a site.

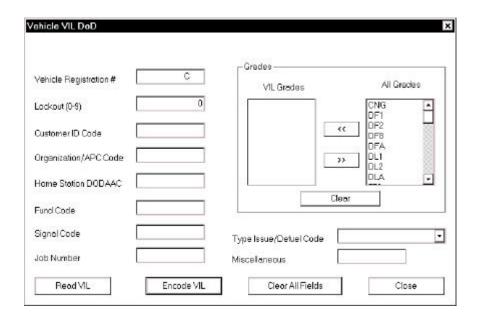
Encode/Edit <u>V</u> ehicle VILs	
Encode/Edit <u>C</u> onfig VILs	
Encode/Edit Mobile VILs	
Display VIL Contents	
Display Encoded VIL <u>L</u> ist	
Erase Key	
Edit VIL Lockout Offline	
Edit DoDAAC Lockout Offlin	е
Edit Org. Code Lockout Offli	ne

<u>The Encode/Edit Vehicle VILs selection</u> allows Vehicle VILs to be read, edited, and encoded. Selecting Encode/Edit Vehicle VILs steps DoDFM Adv to the Vehicle VIL Operations dialog box that displays:

NOTE: There are two different sets of entries allowed when entering VIL data. If you checked the "Air Force Base" box at the Configuration / Modem and Hardware Setup you will have one set of requirements if left uncheck you'll have the standard DoD requirements.

VEHICLE VIL DoD

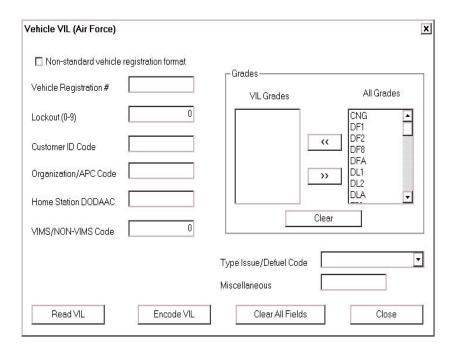




- **Vehicle Registration** # (the vehicle registration number entry allows up to any eight alphanumeric characters).
- Lockout (0-9) (the lockout table adds a ninth character onto the vehicle registration number as stored on the VIL in order to identify it's lock out status. We recommend that the first issue of a VIL be a zero (0) the second issue a one (1) and so on. If you fail to add the locked out VIL to the lockout list you'll have two valid VIL's or more.
- Customer ID Code (Three (3) characters alphanumeric are allowed for this entry
- **Organization/APC Code** (Four (4) characters alphanumeric are allowed for this entry.
- **Home Station DODAAC** (Six (6) characters alphanumeric are allowed for this entry.
- Fund Code (Two (2) character alphanumeric is allowed for this entry.
- **Signal Code** (One (1) characters alphanumeric are allowed for this entry.
- **Job Number** (up to Six (6) characters alphanumeric are allowed for this entry.
- **Grades of Fuel** (From the All Grades window select each of the fuel types which this VIL will be authorized for). *Note: Add all products that this VIL may encounter, no more than eight (8) products per VIL.*
- **Type Issue/Defuel Code** (Select a TID code from the list in this pull-down window)
- **Miscellaneous** (This optional field will permit up to six (6) alphanumeric characters).

VEHICLE VIL DoD (AIR FORCE)





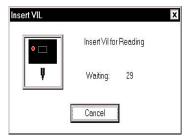
- Non-standard vehicle registration format: Use this check box if the Vehicle Registration Number is going to be "non-standard".
- Vehicle Registration Number: The Standard Vehicle Registration Number is made up of eight (8) alphanumeric characters, two (2) numeric followed by one (1) alpha then five (5) numeric.
- Lockout (0-9): The Lock-out code is 0-9. Zero (0) is the first issue of the vehicle, one (1) the second issue of the vehicle, three (3) the third and so on.
- **Customer ID Code**: three (3) alphanumeric characters.
- **Organization/APC Code**: three (3) numeric characters.
- Home Station DODAAC : six (6) alphanumeric characters.
- VIM/NON-VIMS Code : one (1) numeric character.
- **Grades**: From the All Grades window select each of the fuel types which this VIL will be authorized for, no more that eight products allowed. *Note: Add all products that this VIL may encounter*
- **Type Issue/Defuel Code**: from the Type Issue/Defuel window select a "TID" Code from this pull-down selection window).
- **Miscellaneous**: This Optional field will permit six (6) alphanumeric characters.

Set each value for the selected VIL. Four function buttons are arranged across the bottom of the

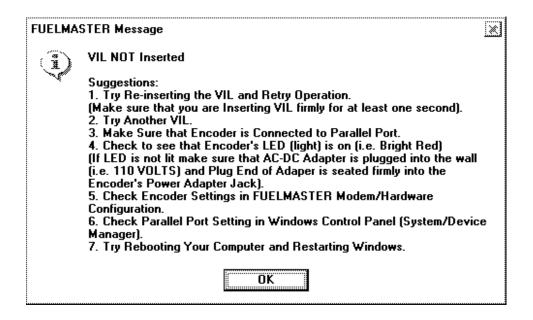


Vehicle VIL Operations dialog box and their functions are:

 Read VIL reads a VIL and displays the VIL's contents on the Vehicle VIL Operations dialog box. Selecting Read VIL steps DoDFM Adv to an Insert VIL dialog box with instructions to "Insert a VIL into the Encoder", whereupon the Vehicle VIL's contents displays on the Vehicle VIL Operations dialog box.



If difficulties arise reading or encoding a VIL, a Fuelmaster Message dialog box offers the following suggestions:



Set each value for the selected VIL. Four function buttons are arranged across the bottom of the Vehicle VIL Operations dialog box, and their functions are:

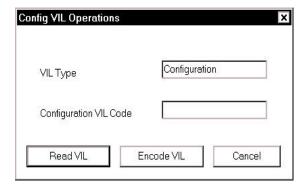
• Encode VIL encodes a VIL with the data displayed on the Vehicle VIL Operations dialog box. Selecting Encode VIL steps DoDFM Adv to an Insert VIL dialog box with instructions



to "Insert a VIL into the Encoder", whereupon the VIL is encoded and a verification to that effect is displayed.

- Clear All Fields clears all Vehicle VIL Operations fields
- Close exits the Vehicle VIL Operations dialog box and returns DoDFM Adv to the DoDFM Adv window.

<u>The Encode/Edit Config VILs selection</u> allows Configuration VILs to be read, edited, and encoded. Selecting Encode/Edit Config VILs steps DoDFM Adv to the Config VIL Operations dialog box that displays:

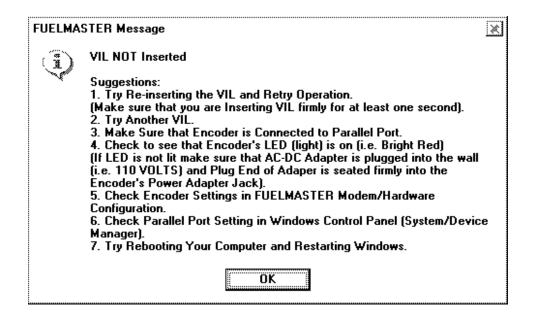


- Configuration VIL Code (1-9 alphanumeric characters);
- Set the Configuration VIL Code for the selected VIL. Three function buttons are arranged across the bottom of the Config VIL Operations dialog box, and their functions are:
- Read VIL reads a VIL and display the VIL's contents on the Config VIL Operations dialog box. Selecting Read VIL steps DoDFM Adv to an Insert VIL dialog box with instructions to "Insert a VIL into the Encoder", whereupon the Config VIL's contents displays on the Config VIL Operations dialog box.





• Encode VIL encodes a VIL with the data displayed on the Vehicle VIL Operations dialog box. Selecting Encode VIL steps DoDFM Adv to an Insert VIL dialog box with instructions to "Insert a VIL into the Encoder", whereupon the VIL is encoded and a verification to that effect displayed. If difficulties arise reading or encoding a VIL, a FUELMASTER® Message dialog box offers the following suggestions:

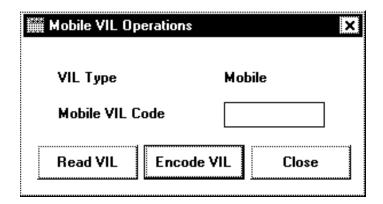


 Close exits the Config VIL Operations dialog box and return DoDFM Adv to the DoDFM Adv window.

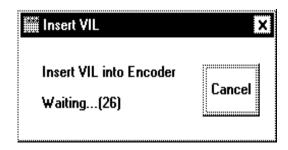


<u>The Encode/Edit Mobile VILs selection</u> allows Mobile VILs to be read, edited, and encoded. Selecting Encode/Edit Mobile VILs steps DoDFM Adv to the Mobile VIL Operations dialog box that displays:

- Mobile VIL Code (1-9 alphanumeric characters);
- Set the Mobile VIL Code for the selected VIL. Three function buttons are arranged across the bottom of the Mobile VIL Operations dialog box, and their functions are:

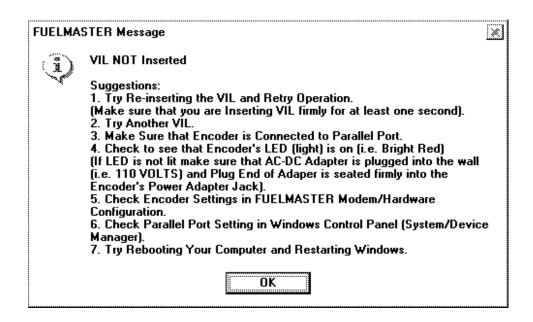


Read VIL reads a VIL and displays the VIL's contents on the Mobile VIL Operations
dialog box. Selecting Read VIL steps DoDFM Adv to an Insert VIL dialog box with
instructions to "Insert a VIL into the Encoder", whereupon the Mobile VIL's contents
displays on the Mobile VIL Operations dialog box.





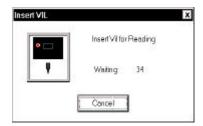
• Encode VIL encodes a VIL with the data displayed on the Mobile VIL Operations dialog box. Selecting Encode VIL steps DoDFM Adv to an Insert VIL dialog box with instructions to "Insert a VIL into the Encoder", whereupon the VIL is encoded and a verification to that effect displayed. If difficulties arise reading or encoding a VIL, a FUELMASTER® Message dialog box offers the following suggestions:



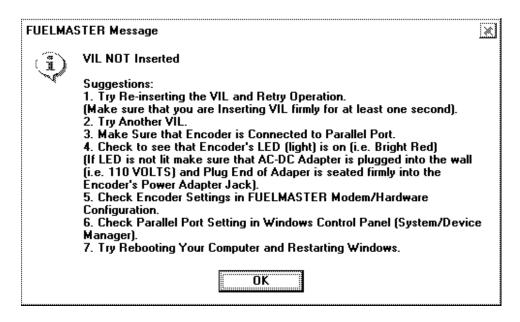
 Close exits the Mobile VIL Operations dialog box and returns DoDFM Adv to the DoDFM Adv window.



The Display VIL Contents selection displays the contents of a VIL. Selecting Display VIL Contents steps DoDFM Adv to an Insert VIL dialog box with instructions to "Insert a VIL into the Encoder", whereupon the VIL's contents displays. Five response options exist;



- a Vehicle VIL's contents displays on the Vehicle VIL Operations dialog box;
- a Config VIL's contents displays on the Config VIL Operations dialog box;
- a Mobile VIL's contents displays on the Mobile VIL Operations dialog box;
- A FUELMASTER® Message dialog box states if a VIL is blank; and,
- If difficulties arise reading, a FUELMASTER® Message dialog box offers the following suggestions:





<u>The Display Encoded VIL List selection</u> displays a list of encoded VIL's. Selecting Display Encoded VIL List steps DoDFM Adv to a listing of all encoded VILS. All fields in the Vehicle VIL Operations dialog box are listed.

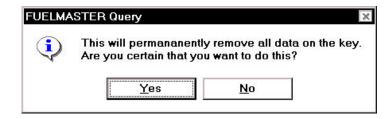
Vehicle Reg.	DoDAAC	Customer ID Code	Organization/APC Code	Fund Code	1
11111111-0	111111	111	1111	1	
22222222-0	222222	222	2222	2	
33333333-0	333333	333	3333	3	
4444444-0	44444	444	4444	4	
55555555-0	555555	555	5555	5	
6666666-0	666666	666	6666	6	
77777777-0	777777	777	7777	7	
888888880	888888	888	8888	8	
99999999-0	999999	999	9999	9	
AAAAAAAA-0	AAAAAA	AAA	AAAA	A	
BBBBBBBB-0	BBBBBB	BBB	BBBB	В	
CCCCCCC-0	CCCCCC	CCC	CCCC	С	
DDDDDDDD-0	DDDDDD	DDD	DDDD	D	
FFFFFFFF-0	FFFFFF	FFF ,	FFFF	F	
1)

- The encoded VIL List may be sorted by any of the record fields by clicking your mouse in the respective header area
- The headings and data can be rearranged by dragging one over the other.

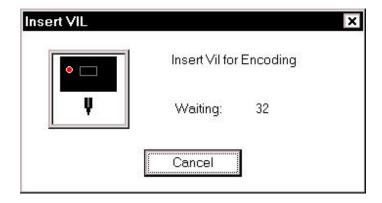
NOTE: The ninth (9th) character in the Vehicle Reg. Field represents the lockout number.

<u>The Erase Key Selection</u> is used to erase or "blank" out all data from a VIL. When selected the following prompt is displayed:

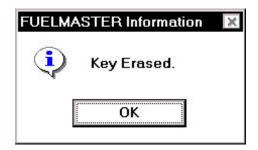




Click *YES* to proceed:



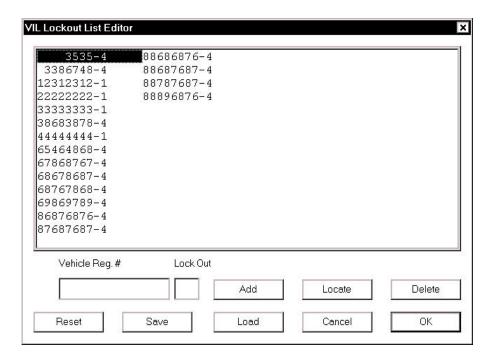
Insert a VIL



<u>The Edit VIL Lockout Offline selection</u> allows a VIL to be locked out based on the VIL's vehicle number (i.e., the vehicle is no longer accepted by the VIR). With this selection you will not be "on-line" with the VIR so normal fueling can contiue. Once you have made the



additions or edits to the VIL lockout List the program will prompt you to save your changes, ask you if you want to upload to VIR and select the site to upload to.



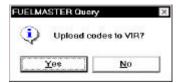
- VIL lockout data; (up to 500 numbers; up to 9 alphanumeric characters); and,
- eight function buttons.

For each VIL to be locked out, enter the Vehicle Registration Number (8-digits) and the Lockout number of that VIL. To locate the "lockout number you can refer to the Operations pull-down menu / Display Encoded VIL List. The eight function buttons of the VIL lockout data are arranged across the bottom of the Lockout VIL dialog box. Their functions are:

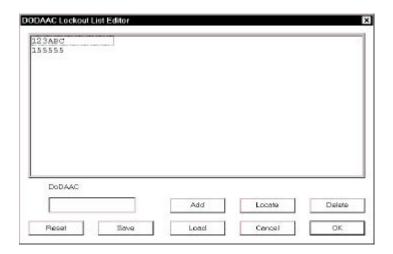
- **ADD** to add enter the vehicle reg. # in the entry box provided and the lockout number in the entry box provided and press Add.
- **LOCATE** find out if a vehicle/lockout is in the list by entering them in the boxes provided and press Locate.
- **DELETE** remove a VIL from the lockout list by highlighting the vehicle you wish removed and press Delete.



- **RESET** blank the entire VIL lockout list by using this feature.
- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- **LOAD** restore the Lockout VIL as it has been saved in the DoDFM Adv software each time a key is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.
- CANCEL leave the lockout dialog box with out changing
- **OK** proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout VIL list to the VIR.



<u>The Edit DODAAC Lockout Offline selection</u> allows a series of VILs to be locked out based on the VIL's DODAAC number (i.e., they are no longer be accepted by the VIR) With this selection you will not be "on-line" with the VIR so normal fueling can contiue. Once you have made the additions or edits to the DODAAC lockout List the program will prompt you to save your changes, ask you if you want to upload to VIR and select the site to upload to.

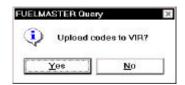




- DODAAC lockout data; (up to 40 codes; up to 6 alphanumeric characters each); and,
- eight function buttons.

For each DODAAC to be locked out, enter the six alphanumeric DODAAC number. eight function buttons are arranged across the bottom of the DODAAC Lockout dialog box. Their functions are:

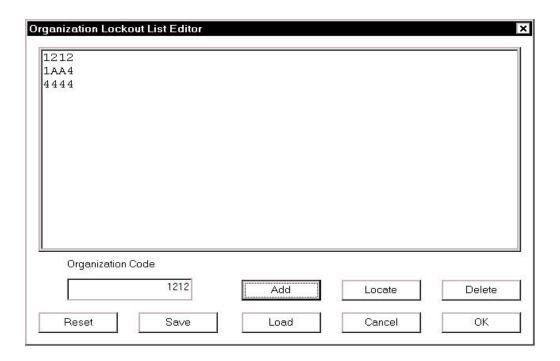
- **ADD** to add enter the DODAAC Code in the entry box provided and press Add.
- **LOCATE** find out if a DODAAC Code is in the list by entering a DODAAC Code in the boxes provided and press Locate.
- **DELETE** remove a DODAAC Code from the lockout list by highlighting the DODAAC Code you wish removed and press Delete.
- **RESET** blank the entire DODAAC Code lockout list by using this feature.
- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- LOAD restore the DODAAC Code Lockout list as it has been saved in the DoDFM Adv software each time a DODAAC Code is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.
- **CANCEL** leave the lockout dialog box with out changing
- **OK** proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout DODAAC Code list to the VIR.





out based on the VIL's Organization Code (i.e., they are no longer be accepted by the VIR). With this selection you will not be "on-line" with the VIR so normal fueling can contiue. Once you have made the additions or edits to the DODAAC lockout List the program will prompt you to save your changes, ask you if you want to upload to VIR and select the site to upload to.

- Org. Code lockout data; (up to 100 codes; up to 4 characters each); and,
- eight function buttons.



For each Org. Code to be locked out, enter the four character Org. Code. eight function buttons are arranged across the bottom of the Org. Code Lockout dialog box. Their functions are:

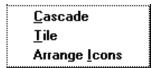
- **ADD** to add enter the Org. Code in the entry box provided and press Add.
- **LOCATE** find out if a Org. Code is in the lockout list by entering it in the boxes provided and press Locate.
- **DELETE** remove a Org. Code from the lockout list by highlighting the Org. Code you wish removed and press Delete.
- **RESET** blank the entire Org. Code lockout list by using this feature.



- SAVE records any action made while in the lockout list. Leaving the lockout list with OK or just closing window without saving will result in lockout list defaulting to where it was when it was opened.
- **LOAD** restore the Lockout list as it has been saved in the DoDFM Adv software each time a Org. Code is added to the lockout list. Would normally be done in conjunction with a reset or mainboard replacement.
- **CANCEL** leave the lockout dialog box with out changing
- **OK** proper method of leaving this dialog box. If you have not saved your actions a prompt will ask you if you would like to save before leaving. The program will then upload (send) the modified lockout Org. Code list to the VIR.



<u>The Window pull-down menu</u>: DoDFM Adv provides Cascade, Tile, and Arrange selections under the Window pull-down menu. These selections provide the user with the capability to arrange and organize viewing boxes.



The Cascade selection arranges subsequent viewing dialog boxes over any prior dialog boxes.

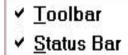
The Tile selection arranges subsequent viewing dialog boxes so that all open dialog boxes



remain visible.

<u>The Arrange Icons selection</u> arranges viewing dialog box icons across the bottom of the DoDFM Adv window.

<u>View Pull Down Menu:</u> DoDFM Adv provides two different viewing features. These selections under the View Pull-Down menu provide the user with the capability to modify his DoDFM Adv main desktop.



- Toolbar: allows the user to remove the line of icons from the top of the desktop leaving only the pull-down menus to select from.
- Status Bar: allows the user to remove the descriptions of where the mouse is pointing from the bottom of the desktop along with the following;
 - Modem status
 - Caps lock status
 - Num lock status

The Help pull-down menu: DoDFM Adv provides, Index, and About under the Help pull-down menu. These selection provides the user with information about DoDFM Adv and its capability.

Index
About DoDFM...



<u>The Index selection</u> steps DoDFM Adv to a DoDFM Adv Help dialog box that displays search and find capabilities. Search and find allows DoDFM Adv to find topics associated with a word or a group of words. Questions associated with given words displays. Questions can be selected and answers to these questions are presented.

<u>The About selection</u> presents information on DoDFM Adv copyright and version number information.



Mobile AFSS Operations

In the field self-service VIR operation for the activation of the tank truck product hose is provided through the automatic capabilities of MAFSS. Manual override switches are installed in the TIM (Truck Interface Module) to override the automatic capabilities, if needed. Following are procedures for both programmed (automated) and manual operation of the Mobile VIR.

Automatic Operation

The following procedures are for automatic operation of the Mobile VIR:

- 1. Position vehicle adjacent to the mobile tanker.
- 2. Check that the UIT (User Interface Terminal) displays:

```
** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY OR CARD TO BEGIN **
```

3. Insert VIL into the UIT receptacle, the following display should appear:

```
** VEHICLE REGISTRATION # = xxxxxxxx **

** PRESS <YES> IF CORRECT! **
```

4. Depress function key "YES" and the following display should appear:

```
** DISPENSER ACTIVATED **

** DISPENSE PRODUCT **
```

After a short pause the display will change to the following prompt:



**	FUELING TRANSACTION IN PROCESS!	**
**	QUANTITY PUMPED = $xxxx$ GAL.	**

xxxx represents the quantity and will increment as you pump. Once dispensing is complete and the finish timer is ended the transaction the following prompt will appear:

```
** TRANSACTION COMPLETED! **

** TRANSACTION QUANTITY = xxxx GAL. **
```

The Mobile VIR has completed this transaction and is ready for the next user to insert their VIL.

Mobile VIR Manual Override

If the Mobile VIR should malfunction and not operate properly or not record quantities because of pulser failure the unit is equipped with a manual override bypass switch. The switch is located on the inside of the door of the TIM (Truck Interface Module). Normally the TIM is installed under the seat of the Truck. Simply push this thumb switch to **manual** mode and the Mobile VIR is by-passed and should dispense. *Keep a log of all manual transactions as the Mobile VIR will not record any quantities in this mode*.

Mobile Vir Configuration

The configuration of the Mobile VIR is much the same as the configuration of the fixed VIR except the configuration screen will only accept four (4) hoses instead of the eight (8) that a fixed VIR will handle. The USAF version of the Mobile VIR will only accept a configuration for one (1) hose, the "A" location. All settings and timers apply the same as they do for the Fixed VIR.



Mobile VIR Pulser

The pulse transmitter is a vital component to the operation and recording of fuel quantities. Without it the Mobile VIR can not "see" fuel being pumped and as a result will shut off dispensing at expiration of the *no-pulse timeout*.

This will be allowed to occur until the Zero Quantity Transaction setting is reach at which time the Mobile VIR will display the following message:

**	HOSE HAS BEEN SHUTDOWN	**
**	PLEASE ALERT SUPERVISOR	**

At this point the Configuration VIL will be needed to re-enable the hose.

NOTE: Currently Syn-Tech knows of two types of C-300 / 301 's using two different divide ratio pulsers. The general rule of thumb to follow is:

- 1989 or older C-300's use a 39:4 divide ratio
- 1990 or newer C-300's use a 10:1 divide ratio

Mobile AFSS Transaction Retrieval Options:



There are currently three (3) methods that can be used to retrieve fueling transactions from Mobile VIR's. All will be covered here in the order they are most often used:

Modem Transfer to Fixed VIR

This method involves positioning the truck near a installed *download box* and connecting a *download cable* from the "TIM" to the DOWNLOAD BOX. This will provide a voice grade dial tone to the modem located inside the TIM.

Next, insert a *MOBILE VIL* into the VIL reader on the "UIT" and the following prompt will be displayed:

```
* MOBILE MENU: 1= MENU #2, 2 = SHOW TOTAL*

* B = DOWNLOAD

D = EXIT
```

The first step is to set up the communication parameters that you want the TIM to follow. Depress the function key 1 and the following will be observed:

```
* MOBILE MENU #2:

* 1 = SETTINGS, C = RECIRCULATION, D = EXIT

*
```

Depress function key 1 to advance to the next menu:

```
* MOBILE SETTINGS:

*
* 1=PHONE NUMBER,2=TRUCK NUMBER,D=EXIT*
```

Depress function key 1 to advance to the next menu:

```
* SELECT DIAL METHOD – CURRENT: xxxx *
```



```
* A=TONE, B=PULSE, Y=CURRENT, N=CANCEL *
```

Make your selection, a few seconds later the screen will change to:

```
* PHONE DIAL METHOD SET TO: *

* xxxx

*
```

The screen will then change to:

```
* USE: A=ENABLE, B=DISABLE, D=CANCEL * DIAL TONE DETECTION: xxxxxxx *
```

Make your selection, a few seconds later the screen will change to:

```
* DIAL TONE DETECTION SET TO: *

* xxxxxxx
*
```

The screen will then change to:

```
* CUR # = xxxxx

* NEW # = ______*
```

Enter the phone number to the Fixed VIR that this Mobile VIR will transfer transactions to and press the *ENTER* button, the screen will change to:

```
* PHONE NUMBER SET TO: xxxxx DIALING * xxxxx
```

A few seconds later the screen will change to:

```
* MOBILE SETTINGS:
*1=PHONE NUMBER,2=TRUCK NUMBER,D=EXIT*
```



Press the function key 2 and the display will change to:

```
** CUR TRUCK NUMBER = xx

* NEW TRUCK NUMBER = xx **
```

Enter the new truck number and press the *ENTER* button, the screen will change to :

After a few seconds the screen will return to:

```
* MOBILE SETTINGS:

* 1=PHONE NUMBER,2=TRUCK NUMBER,D=EXIT*
```

Press function key D twice to return to:

```
* MOBILE MENU: 1= MENU #2, 2 = SHOW TOTAL*

* B = DOWNLOAD

D = EXIT
```

Before performing the transaction download it is recommended that you check the transactions totals. To do this function press function key 2 and the following menu will be observed:

```
** CURRENT TOTAL ISSUES = xxxx

**

** PRESS ANY KEY TO RETURN TO MENU... **
```

The download is executed from the MOBILE MENU. Select function key B and the following sequence of events should occur. It is recommended that the operator watch the display for the following:



** MOBILE FMU TRANSACTION DOWNLOADING ** ** DIALING MASTER VIR ** MOBILE FMU TRANSACTION DOWNLOADING ** ** CONNECTED TO MASTER VIR! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** ATTEMPTING LOGON TO MASTER VIR! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** LOGGED ON MASTER VIR! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** INITIALIZING MASTER VIR! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** MASTER VIR INITIALIZED! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** WAITING FOR MASTER VIR COMMAND! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** RECEIVING MASTER VIL LOCK LIST! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** VIL LOCK LIST RECEIVED! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** RECEIVING MASTER ORG LOCK LIST! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** ORG LOCK LIST RECEIVED!

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** MOBILE FMU TRANSACTION DOWNLOADING **



** MOBILE FMU TRANSACTION DOWNLOADING ** ** DODAAC LOCK LIST RECEIVED! ** MOBILE FMU TRANSACTION DOWNLOADING ** ** RECEIVING VIL COUNT FROM MASTER! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** RECEIVING ORG COUNT FROM MASTER! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** RECEIVING DODAAC COUNT FROM MASTER!** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** SENDING TRANSACTION CNT TO MASTER! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** SENDING TRANSACTONS TO MASTER VIR! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** DOWNLOAD SUCCESSFULL: 7 TRANS ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** INITIALING TRANSACTION ARCHIVE! ** ** MOBILE FMU TRANSACTION DOWNLOADING ** ** EXITING MOBILE DOWNLOAD OPERATION! ** * MOBILE DWNLD COMPLETED SUCCESSFULLY! * * PRESS ANY KEY TO CONTINUE.... * MOBILE MENU: 1=MENU #2, 2=SHOW TOTAL *

** RECEIVING MASTER DODAAC LOCK LIST! **



* B=DOWNLOAD D=EXIT *

Using the keypad, enter "D" to exit to the previous menu:

```
** FuelMaster FUELS ACCOUNTING SYSTEM **

** INSERT KEY, HOLD 1 SECOND TO BEGIN **
```

The transactions are now stored in memory at the Fixed VIR site and may be retrieved or queried from the designated central controller office with the DODa program.

Remove the Mobile VIL from the UIT and disconnect the Download Cable from the Download box.

Download directly from the Mobile VIR via Modem:

This method also involves plugging the Mobile VIR into the designated download box as you did in the last method with a major difference. Instead of using a Mobile VIL to start the process simply leave the truck running and notify the office that is responsible retrieving the transaction data and let them know that the TIM is plugged in to the download box.

They will then proceed to follow the steps to retrieve transactions from the Mobile VIR as if it was any other *fixed VIR site* except they will add to the dialing menu the phone number to the download box.

Plug a laptop computer directly into the TIM.

This method is more of a backup method should phone communications be down for what ever reason. Using the special cable provided plug one end into the TIM and the other end into a serial port on a laptop computer that has the DODa software loaded.

To perform this operation a site should be added to your "phonebook" being



sure to checkmark the box titled **Direct Connection** and the laptop computer's serial port is selected from the pull-down menu.

Once that is complete simply follow the normal transaction retrieval steps as you would for any other *fixed VIR site*.

How do I make a vehicle VIL?

- 1. Click the Operations pull-down menu;
- 2. Highlight and click the Encode/Edit Vehicle VILs option;
- 3. In the Vehicle VIL Operations dialog box, enter the appropriate Vehicle VIL information;
- 4. Click Encode VIL; and,

Note

Insure that the red LED on the VIL Encoder is on brightly and that the VIL Encoder is attached to the PC's parallel port.

5. Insert and hold a VIL into the VIL Encoder.

How do I make a Configuration VIL?

- 1. Click the Operations pull-down menu;
- 2. Highlight and click the Encode/Edit Config VILs option;
- 3. In the Config VIL Operations dialog box, enter the appropriate Config VIL information;
- 4. Click Encode VIL; and,

Note

Insure that the red LED on the VIL Encoder is on brightly and that the VIL Encoder is attached to the PC's parallel port.

5. Insert and hold a VIL into the VIL Encoder.

How do I make a Mobile VIL?

- 1. Click the Operations pull-down menu;
- 2. Highlight and click the Encode/Edit Mobile VILs option;
- 3. In the Mobile VIL Operations dialog box, enter the appropriate Mobile VIL information;
- 4. Click Encode VIL; and,



Note

Insure that the red LED on the VIL Encoder is on brightly and that the VIL Encoder is attached to the PC's parallel port.

5. Insert and hold a VIL into the VIL Encoder.

How do I look at (display) a VIL's Contents?

- 1. Click the Operations pull-down menu;
- 2. Highlight and click the Display VIL Contents option;

Note

Insure that the red LED on the VIL Encoder is on brightly and that the VIL Encoder is attached to the PC's parallel port.

- 3. Insert and hold a VIL into the VIL Encoder; and,
- 4. A dialog box, appropriate to the type of VIL inserted, displays the VIL's contents.

How do I setup communications for the PC's modem?

- 1. Click the Configuration pull-down menu;
- 2. Highlight and click the Modem and Hardware Setup option;
- 3. In the Modem and Hardware Setup dialog box, enter the appropriate modem information; and,
- 4. Click OK.

How do I setup the VIL Encoder? How do I define a parallel port?

- 1. Click the Configuration pull-down menu;
- 2. Highlight and click the Modem and Hardware Setup option;

Note

Undefined parallel ports are disabled (shown in gray versus black for active choices).

- 3. In the Modem and Hardware Setup dialog box, enter the appropriate Encoder Port; and,
- 4. Click OK.

How do I enter site phone numbers?

1. Click the Configuration pull-down menu;



- 2. Highlight and click the Station Phone Numbers option;
- 3. In the Station Phone Numbers dialog box, select the appropriate phone numbers; and,
- 4. Click OK.

How do I change the password?

- 1. Click the Configuration pull-down menu;
- 2. Highlight and click the Change Password option;
- 3. In the Change Password dialog box, enter the old password followed by the new password (twice); and,
- 4. Click OK.

How do I change the site's name?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Site Name; and,
- 5. Click OK.

How do I change the hose numbers?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the hose numbers; and,
- 5. Click OK.



How do I change the divide ratio?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the divide ratio; and,
- 5. Click OK.

How do I change the system designator?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc. tabs button
- 5. Select the System Designator and modify.
- 6. Click ok.



How do I change the julian date roll-over hour?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial:
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc. tabs button
- 5. Select the Julian date roll-over hour and modify.
- 6. Click OK.

How do I change the valid key time out?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc. tabs button
- 5. Select the Valid key time out and modify
- 6. Click OK.



How do I change the pump finish time out?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the pump finish time out; and,
- 5. Click OK.

How do I change the message duration?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc. tabs button
- 5. Select the message duration and modify
- 6. Click OK.



How do I change the modem answer time?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial
 - In the Unit Selection dialog box click the radio button for the desired VIR (master or satellite units); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc tabs button
- 5. Select modem answer time and modify
- 6. Click OK.

How do I change the system time?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial:
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their time and date from the Master VIR and can not be changed); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc tabs button
- 5. Select the time and modify
- 6. Click OK.



How do I change the system date?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Unit Configuration option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their time and date from the Master VIR and cannot be changed); and,
 - Click OK.
- 4. In the Unit Configuration dialog box, select the Misc tabs button
- 5. Select date and modify
- 6. Click OK.

How do I prevent a specific vehicle VIL from being accepted by a VIR (i.e., locked out)?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the VIL Lockout option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their lockout data from the Master VIR and can not be changed); and,
 - Click OK.

Note

Vehicle VILs with Vehicle numbers in the lockout list are NOT accepted by the VIR.

- 4. In the Lockout VIL dialog box, enter the vehicle VIL number to be locked out; and,
- 5. Click OK.



How do I get a VIR to accept a Config VIL? How do I prevent Config VILs from being accepted by a VIR?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the VIL Lockout option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their lockout data from the Master VIR and can not be changed); and,
 - Click OK.

Note

Config VILs with numbers in the lockout list are accepted by the VIR (i.e., the Lockout VIL list works as a lockin list for Config VILs).

- 4. In the Lockout VIL dialog box, enter the Config VIL numbers that are to be accepted and delete any Config VIL numbers that are not to be accepted; and,
- 5. Click OK.

How do I prevent mobile VILs from being accepted by a VIR?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the VIL Lockout option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial:
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their lockout data from the Master VIR and can not be changed); and,
 - Click OK.

Note

Mobile VILs with Mobile VIL Codes in the lockout list are NOT accepted by the VIR.

- 4. In the Lockout VIL dialog box, enter the Mobile VIL number to be locked out; and,
- 5. Click OK.



How do I prevent a group of vehicle VILs from being accepted by a VIR based on their DODAAC code?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the VIL Lockout option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their lockout data from the Master VIR and can not be changed); and,
 - Click OK.

Note

Vehicle VILs with DODAAC numbers in the lockout list are NOT accepted by the VIR.

- 4. In the DODAAC Lockout dialog box, enter the DODAAC number to be locked out; and,
- 5. Click OK.

How do I prevent a group of vehicle VILs from being accepted by a VIR based on their Organization code?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Org. Code Lockout option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
 - In the Unit Selection dialog box click the radio button for the Master VIR (satellite VIRs receive their lockout data from the Master VIR and can not be changed); and,
 - Click OK.

Note

Vehicle VILs with Org. Code numbers in the lockout list are NOT accepted by the VIR.

- 4. In the Org. Code Lockout dialog box, enter the Org. Code number to be locked out; and,
- 5. Click OK.

How do I retrieve fixed site VIR transaction data?



- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Retrieve Transactions option;
- 3. In the FUELMASTER® Message dialog box, Click Yes;
- 4. If the VIR is not on-line:
 - In the Location pull down menu box click the desired phone number;
 - Click Dial;
- 5. A summary of received converted transaction data is presented in a viewing window.
- 6. The raw transaction data file is stored in "\DoDFM\raw data" and the converted transaction data is stored in "\DoDFM\transactions".

NOTE:

THE PROPER SEQUENCE FOR TRANSACTION DOWNLOAD IS:

- . PERFORM A TRANSACTION QUERY OF THE SITE.
- . REVIEW THE QUERY WITH THE VIEWER FOR CORRECT TRANSACTIONS / HOSE REPRESENTATION.
- . IF CORRECT CONTINUE WITH THE RETRIEVE TRANSACTIONS SELECTION. IN NOT CORRECT CONTACT SYN-TECH SYSTEMS PRODUCT SUPPORT AT 800-888-9136 BEFORE PROCEEDING.

How do I query fixed site VIR transaction data?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Query Transactions option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
- 4. A summary of queried converted transaction data is presented in a viewing window.
- 5. The raw transaction data file is stored in "\DoDFM\raw data" and the converted transaction data is stored in "\DoDFM\transactions".

How do I retrieve mobile VIR transaction data?



- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Retrieve Mobile Transactions option;
- 3. In the FUELMASTER® Message dialog box, Click Yes;
- 4. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
- 5. A summary of received converted mobile transaction data is presented in a viewing window.
- 6. The raw transaction data file is stored in "\DoDFM\raw data" and the converted transaction data is stored in "\DoDFM\transactions".

NOTE:

THE PROPER SEQUENCE FOR TRANSACTION DOWNLOAD IS:

- . PERFORM A TRANSACTION QUERY OF THE SITE.
- . REVIEW THE QUERY WITH THE VIEWER FOR CORRECT TRANSACTIONS / HOSE REPRESENTATION.
- . IF CORRECT CONTINUE WITH THE RETRIEVE TRANSACTIONS SELECTION. IN NOT CORRECT CONTACT SYN-TECH SYSTEMS PRODUCT SUPPORT AT 800-888-9136 BEFORE PROCEEDING.

How do I query mobile VIR transaction data?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Query Mobile Transactions option;
- 3. If the VIR is not on-line:
 - In the Location pull down menu click the desired phone number;
 - Click Dial;
- 4. A summary of queried converted mobile transaction data is presented in a viewing window.
- 5. The raw transaction data file is stored in "\DoDFM\raw data" and the converted transaction data is stored in "\DoDFM\transactions".

What does the file name mean?

How do I know what a file contains?



There are eight (8) transaction types (4 raw data & 4 converted data) maintained by DoD FUELMASTER:

- "zzmmdd stationzz MMMddyy tttt.raw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.rqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mrw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.prn" is the DoDFM Adv generated name for converted retrieved transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.qry" is the DoDFM Adv generated name for converted queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mpn" is the DoDFM Adv generated name for converted retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for converted queried transaction data generated by a Master VIR.

These file names are twenty nine characters long (including spaces), take advantage of Windows NT's convenient file definition. They represent:

- "zz" the station number;
- "mm" the number of the month;
- "dd" the day of the month;
- "stationzz" the station number;
- "MMM" the month (i.e. JAN, FEB, etc.);
- "yy" the last two digits of the year;
- "tttt" the time in hrs & minutes (i.e., 1520 (military time)represents 20 minutes after 3P.M.);

A hypothetical file name could be "010322 station01 MAR2296 1520.qry". This file contains converted queried transaction data from Master VIR number 01 on the 22nd of March 1996 @ 1520 o'clock. In DOS, this same hypothetical file with its shortened name of "010322~1.qry" represents converted queried transaction data from Master VIR number 01 on the 22nd of March.



When data is retrieved or queried, fixed site or mobile, the data is stored in both the "raw data" and "transactions" folders. The four types of raw data in the "raw data" folder being:

- "zzmmdd stationzz MMMddyy tttt.raw";
- "zzmmdd stationzz MMMddyy tttt.rqy";
- "zzmmdd stationzz MMMddyy tttt.mrw"; and,
- "zzmmdd stationzz MMMddyy tttt.mqy".

This data is never over written by DoDFM Adv and can not be deleted by DoDFM Adv. The four types of converted data in the "transactions" folder are:

- "zzmmdd stationzz MMMddyy tttt.prn";
- "zzmmdd stationzz MMMddyy tttt.qry";
- "zzmmdd stationzz MMMddyy tttt.mpn";
- "zzmmdd stationzz MMMddyy tttt.mqy";

DoDFM Adv over writes these files with incoming files. For example, suppose a hypothetical transactions folder contains three files:

- "010322 station01 MAR2296 1520.qry"
- "020322 station02 MAR2296 1532.qry"
- "030322 station03 MAR2296 1545.qry"

Further, suppose that site number 3 is queried the next day. Its file name might be "030323 station03 MAR2396 1632.qry". This file overwrites the previous station03 data and the transaction folder would now contain:

- "010322 station01 MAR2296 1520.qry"
- "020322 station02 MAR2296 1532.qry"
- "030323 station03 MAR2396 1632.qry"

How do I view transactions?

Note

During the retrieve and query procedures, transactions are presented in a viewing



widow.

- 1. Click the File pull-down menu;
- 2. Highlight and click the View option;

Note

Converted files are stored in the "\DoDFM\transactions" folder. Four types could be present:

- 1. "zzmmdd stationzz MMMddyy tttt.prn" for converted retrieved transaction data:
- 2. "zzmmdd stationzz MMMddyy tttt.qry" for converted queried transaction data:
- 3. "zzmmdd stationzz MMMddyy tttt.mpn" for converted retrieved mobile transaction data; and,
- 4. "zzmmdd stationzz MMMddyy tttt.mqy" for converted queried mobile transaction data.
- 3. In the Select File dialog box selected and highlight the file is viewed; and,
- 4. click Open.

How do I print transactions?

- 1. Anytime a viewing window is present, such as when:
 - data is retrieved; or
 - data is queried; or
 - data is viewed.
- 2. Click the File pull-down menu;
- 3. Highlight and click the Print option;
- 4. In the FUELMASTER® Message dialog box, click Yes.

How do I recover transaction data from the "\DoDFM\raw data" folder?

- 1. Click the File pull-down menu;
- 2. Highlight and click the Convert Data option;
- 3. In the Select File for Conversion dialog box, highlight the file to be converted (recovered);



- 4. click OPEN;
- 5. DoDFM Adv steps to a DoDFM Adv viewing window showing the converted transaction data; and,
- 6. DoDFM Adv puts the converted transaction data into the "\DoDFM\transactions" folder.

How do I check if a VIL is locked out?

- 1. Click the Operations pull-down menu;
- 2. Highlight and click the Display VIL Contents option;
- 3. Insert and hold a VIL into the VIL Encoder; and,
- 4. A dialog box appropriate to the type of VIL inserted displays the VIL's contents.
- 5. Click the Online pull-down menu, and based on the type of VIL (Vehicle, Config, or Mobile):
- 6. Highlight and click on either:
 - the VIL Lockout option; or
 - the DODAAC Lockout option; or
 - the Org. Code Lockout option.
- 7. Compare the appropriate lockout information with VIL information.

How do I dial a VIR?

- 1. Click the On-line pull-down menu;
- 2. Highlight and click the Dial a Station option;
- 3. In the Location pull down menu click the desired phone number;
- 4. Click Dial;

How do I know if I'm on or off line?

At the bottom of the screen is the Status Bar. In the Status Bar is a Status Item that displays either ON-LINE or OFF-LINE. This Status Bar, via a Status Item, also displays either MODEM or DIRECT.



AFSS Operator's Manual Appendix 2 File Names

The following files can be found in the "\DoDFM/" folder.

- "phone.dat" is the phone list that is entered through the Station Phone Numbers dialog box.
- "download.sum" is the fill stand summary report (equating to AF Forms 1233 and 1234).
- "download.sm!" is an old "download.sum" file. Each time a summary report is requested, a "download.sum" is generated and the old "download.sum" is renamed "download.sm!".
- "download.dsc" is a temporary discard file for transaction quantities less than a full unit. Refer to Accumulating Products associated with product types 15 through 18. The product quantities that are less than a full unit are stored in "vilaccum.dat".
- "download.bad" is an old "download.dsc" file. Each time products equating to product codes 15 through 18 are retrieved with product quantities less that a full unit, "download.dsc" is created and the old "download.dsc" is renamed "download.bad".
- "download.txt" is the transaction file shown in the viewing window when transactions are retrieved or queried.
- "download. bar" is an old "download.txt" file. Each time transactions are retrieved or queried "download.txt" is created and the old "download.txt" is renamed "download.bar".
- "download.raw" is the initial raw transaction as it is retrieved or queried. It is over written by subsequent retrieves and queries, and the data is then copied to one of the four file types in the "\DoDFM\raw data" folder.
- "download.prn" is the initial converted transaction from "download.raw". It is over written by subsequent retrieves and queries, and the data is then copied to one of the four file types in the "\DoDFM\transactions" folder.
- "keylist.tmp" is the list of VIL lockout numbers as it is received from a VIR and displayed on the VIL Lockout dialog box. This file is over written during each subsequent VIL Lockout operation.
- "dodaac.tmp" is the list of DODAAC lockout numbers as it is received from a VIR and displayed on the DODAAC Lockout dialog box. This file is over written during each



AFSS Operator's Manual Appendix 2 File Names

subsequent VIL Lockout operation.

- "orgcode.tmp" is the list of Org. Code lockout numbers as it is received from a VIR and displayed on the Org. Code Lockout dialog box. This file is over written during each subsequent VIL Lockout operation.
- "encode.dat" is a list of all VILs encoded by the DoDFM Adv.
- "keylist.txt" is the list of VIL lockout numbers as sent to the VIR, if the response to "Do You Want to Backup VIL Data?" is Yes.
- "keylist.\$\$\$" is the list of VIL lockout numbers as sent to the VIR, if the response to "Do You Want to Backup VIL Data?" is No.
- "dodaac.txt" is the list of DODAAC lockout numbers as sent to the VIR, if the response to "Do You Want to Backup DODAAC Data?" is Yes.
- "dodaac.\$\$\$" is the list of DODAAC lockout numbers as sent to the VIR, if the response to "Do You Want to Backup DODAAC Data?" is No.
- "orgcode.txt" is the list of ORG. Code lockout numbers as sent to the VIR, if the response to "Do You Want to Backup Org. Code Data?" is Yes.
- "orgcode.\$\$\$" is the list of Org. Code lockout numbers as sent to the VIR, if the response to "Do You Want to Backup Org. Code Data?" is No.
- "debug.txt" is a file used internally by DoDFM Adv.
- "install.log" is created during the installation of DoDFM Adv and is used by DoDFM Adv during the uninstall process.

The following files can be found in the "\DoDFM\raw data" folder.

• "zzmmdd stationzz MMMddyy tttt.raw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data from a Master VIR.



AFSS Operator's Manual Appendix 2 File Names

- "zzmmdd stationzz MMMddyy tttt.rqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mrw" is the DoDFM Adv generated name for raw (unconverted binary information) retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for raw (unconverted binary information) queried transaction data generated by a Mobile VIR.

The following files can be found in the "\DoDFM\transactions" folder.

- "zzmmdd stationzz MMMddyy tttt.prn" is the DoDFM Adv generated name for converted retrieved transaction data from a Master VIR.".
- "zzmmdd stationzz MMMddyy tttt.qry" is the DoDFM Adv generated name for converted queried transaction data from a Master VIR.
- "zzmmdd stationzz MMMddyy tttt.mpn" is the DoDFM Adv generated name for converted retrieved transaction data generated by a Mobile VIR.
- "zzmmdd stationzz MMMddyy tttt.mqy" is the DoDFM Adv generated name for converted queried transaction data generated by a Master VIR.



AFSS Operator's Manual Appendix 3 Addition Setup String Commands

1. Robotics model 33.3KBPS requires that "&M0" be placed in the Additional Setup String window.